

OPERATION AND PARTS MANUAL



Mikasa SERIES
MODEL MVH-120GH
REVERSIBLE PLATE COMPACTOR
**(HONDA GX160K1SM12/GX160U1SM12/
GX160U1SMX4
GASOLINE ENGINE)**

Revision #3 (10/24/07)

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publication, visit our website at:
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THIS MANUAL MUST ACCOMPANY THE EQUIPMENT AT ALL TIMES.



WARNING



CALIFORNIA — Proposition 65 Warning

Engine exhaust and some of its constituents are known to the State of California to cause cancer, birth defects and other reproductive harm.

NOTE PAGE

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*Specification and part number
are subject to change without
notice.*

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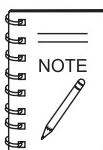
International Customers should contact their local Multiquip Representatives for Parts Ordering information.

When ordering parts, please supply:

- Dealer Account Number
- Dealer Name and Address
- Shipping Address (if different than billing address)
- Return Fax Number
- Applicable Model Number
- Quantity, Part Number and Description of Each Part

Specify Preferred Method of Shipment:

- | | |
|--|---|
| <input checked="" type="checkbox"/> UPS/Fed Ex | <input checked="" type="checkbox"/> DHL |
| <input type="checkbox"/> Priority One | <input checked="" type="checkbox"/> Truck |
| <input type="checkbox"/> Ground | |
| <input type="checkbox"/> Next Day | |
| <input type="checkbox"/> Second/Third Day | |



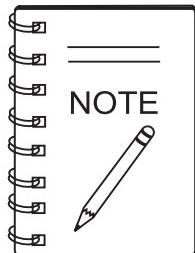
All orders are treated as **Standard Orders** and will ship the same day if received prior to 3PM PST.

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FOR YOUR SAFETY AND SAFETY OF OTHER

Safety precautions should be followed at all times when operating this equipment. Failure to read and understand the Safety Messages and Operating Instructions could result in injury to yourself and others.



This manual has been developed to provide complete instructions for the safe and efficient operation of this equipment. Refer to the engine manufacturer's instructions for data relative to its safe operation.

Before using this equipment ensure that the operating individual has read and understood all instructions in this manual.

SAFETY MESSAGE ALERT SYMBOLS

The three Safety Messages shown below will inform you about potential hazards that could injure you or others. The Safety Messages specifically address the level of exposure to the operator, and are preceded by one of three words: **DANGER**, **WARNING**, or **CAUTION**.

DANGER

You **WILL** be **KILLED** or **SERIOUSLY INJURED** if you **DO NOT** follow these directions.

WARNING

You **CAN** be **KILLED** or **SERIOUSLY INJURED** if you **DO NOT** follow these directions.

CAUTION

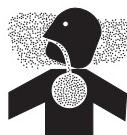
You **CAN** be **INJURED** if you **DO NOT** follow these directions.

HAZARD SYMBOLS

Potential hazards associated with the operation of this equipment will be referenced with Hazard Symbols which appear throughout this manual, and will be referenced in conjunction with Safety Message Alert Symbols.



WARNING — Lethal Exhaust Gas Hazards



Engine fuel exhaust gases contain poisonous carbon monoxide. This gas is colorless and odorless, and can cause death if inhaled. **NEVER** operate this equipment in a confined area or enclosed structure that does not provide ample free flow air.



WARNING — Explosive Fuel Hazards



Fuel is extremely flammable and its vapors can cause an explosion if ignited. **DO NOT** start the engine near spilled fuel or combustible fluids.

DO NOT fill the fuel tank while the engine is running or hot. **DO NOT** overfill tank, since spilled fuel could ignite if it comes into contact with hot engine parts or sparks from the ignition system. Store fuel in approved containers, in well-ventilated areas and away from sparks and flames.



WARNING — Burn Hazards



Engine components can generate extreme heat. To prevent burns, **DO NOT** touch these areas while the engine is running or immediately after operation. Never operate the engine with heat shields or heat guards removed.



WARNING — Respiratory Hazards



ALWAYS wear approved respiratory protection when required.



CAUTION — Rotating Parts Hazards



NEVER operate equipment with covers or guards removed. Keep fingers, hands, hair and clothing away from all moving parts to prevent injury.



CAUTION — Overspeed Conditions



NEVER tamper with the factory setting of the engine governor. Personal injury and equipment damage can result if operating in speed ranges above the maximum allowable.



CAUTION — Accidental Starting Hazards



ALWAYS place the equipment ON/OFF switch in the OFF position when the equipment is not in use.



CAUTION — Equipment Damage Hazards

Other important messages are provided throughout this manual to help prevent damage to your equipment, other property, or the surrounding environment.



CAUTION — Eye and Hearing Hazards



ALWAYS wear approved eye and hearing protection.

RULES FOR SAFE OPERATION

⚠ WARNING — Read This Manual

Failure to follow instructions in this manual may lead to serious injury or even **DEATH!** This equipment is to be operated by trained and qualified personnel only! This equipment is for industrial use only.

- **DO NOT** operate or service this equipment before reading this entire manual.
- This equipment should not be operated by persons under 18 years of age.
- **NEVER** operate this equipment without proper protective clothing, shatterproof glasses, steel-toed boots and other protective devices required by the job.



- **NEVER** operate this equipment when not feeling well due to fatigue, illness or when under medication.
- **NEVER** operate this equipment under the influence of drugs or alcohol.



- **NEVER** disconnect any "**emergency or safety devices**". These devices are intended for operator safety. Disconnection of these devices can cause severe injury, bodily harm or even death! Disconnection of any of these devices will void all warranties.
- **NEVER** use accessories or attachments that are not recommended by Multiquip for this equipment. Damage to the equipment and/or injury to user may result.
- Manufacturer does not assume responsibility for any accident due to equipment modifications. Unauthorized equipment modification will void all warranties.
- Whenever necessary, replace nameplate, operation and safety decals when they become difficult read.
- **ALWAYS** check the equipment for loosened threads or bolts before starting.

- **NEVER** touch the hot exhaust manifold, muffler or cylinder. Allow these parts to cool before servicing engine or equipment.



- **ALWAYS** allow the engine to cool before adding fuel or performing service and maintenance functions. Contact with *hot* components can cause serious burns.

- **NEVER** operate this equipment in any enclosed or narrow area where free flow of the air is restricted. The engine of this equipment requires an adequate free flow of cooling air. If the air flow is restricted it will cause serious damage to the equipment or engine and may cause injury to people and property. Remember the engine gives off **DEADLY** gases.

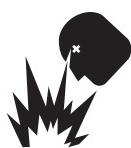


- **ALWAYS** refuel in a well-ventilated area, away from sparks and open flames.

- **ALWAYS** use extreme caution when working with **flammable** liquids. When refueling, **stop** the engine and allow it to cool.



- **DO NOT** smoke around or near the equipment. Fire or explosion could result from fuel vapors, or if fuel is spilled on a hot engine.



- **NEVER** operate the equipment in an explosive atmosphere or near combustible materials. An explosion or fire could result causing severe **bodily harm or even death**.

- **DO NOT** top-off fuel tank. Topping-off is dangerous as it causes fuel to spill.

- **ALWAYS** store the equipment in a clean, dry location out of the reach of children.

- **NEVER** run engine without air cleaner. Severe engine damage may occur.

- **NEVER** leave the equipment unattended with the engine running. Turn off engine when unattended.

- **CAUTION** must always be observed while servicing this equipment. Rotating parts can cause injury if contacted.

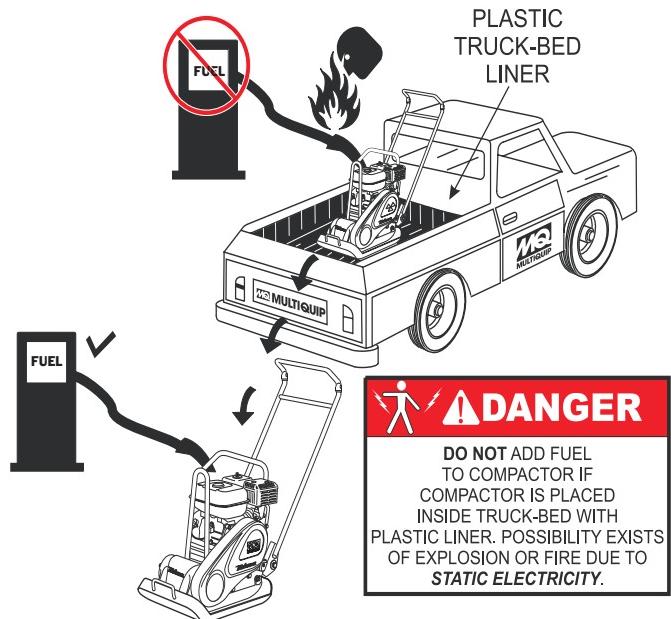
RULES FOR SAFE OPERATION

REFUELING

- Before lifting, make sure that equipment parts (hook and vibration insulator) are not damaged and screws are not loosened or lost.
- **ALWAYS** make sure crane or lifting device has been properly secured to the lifting bail (hook) of the equipment.
- **NEVER** lift the equipment while the engine is running.
- Use adequate lifting cable (wire or rope) of sufficient strength.
- Use one point suspension hook and lift straight upwards.
- **NEVER** allow any person or animal to stand underneath the equipment while lifting.
- Do not lift machine to unnecessary heights.
- **ALWAYS** shutdown engine before transporting.



- Tighten fuel tank cap securely and close fuel cock to prevent fuel from spilling.
- Drain fuel when transporting equipment over long distances or bad roads.
- **ALWAYS** tie down the equipment during transport by securing the equipment with rope.



MAINTENANCE SAFETY

- **NEVER** lubricate components or attempt service on a running machine.
- **ALWAYS** allow the machine a proper amount of time to cool before servicing.
- Keep the equipment in proper running condition.
- Fix damage to the equipment immediately and always replace broken parts.
- Dispose of hazardous waste properly. Examples of potentially hazardous waste are used motor oil, fuel and fuel filters.
- **DO NOT** use food or plastic containers to dispose of hazardous waste.
- **DO NOT** pour waste, oil or fuel directly onto the ground, down a drain or into any water source.

MVH-120GH — SPECIFICATIONS

TABLE 1. COMPACTOR SPECIFICATIONS

| | |
|----------------------|--|
| Model | MVH-120GH |
| Centrifugal Force | 5,200 lbs. (2,350 kg) |
| Number of Vibrations | 6,000 v/min |
| Traveling Speed | 75 ft./min (23 meters/min) |
| Plate Size (LxW) | 23 x 15.7 x 39 in. (584 x 399 mm) |
| Dimensions (LxWxH) | 35.4 x 15.7 x 39 in. (900 x 399 x 990 mm) |
| Operating Weight | 247 lbs. (111 kg.) |

TABLE 2. ENGINE SPECIFICATIONS

| | |
|---------------------|---|
| Engine Make | HONDA |
| Engine Model | GX160K1SM12, GX160U1SM12, GX160U1SMX4 |
| Engine Type | OHV Gasoline Engine |
| Number Of Cylinders | 1 |
| Displacement | 9.9 cu. in (163 cc) |
| Maximum Output | 5.5 H.P./3,600 rpm |
| Oil Grade | See Table 3 |
| Oil Capacity | 1.3 pints (0.6 liters) |
| Fuel Type | Unleaded |
| Fuel Tank Capacity | 3.8 qt. (3.6 liters) |
| Dry Weight | 33 lbs. (15 kg) |
| Starting Method | Recoil Start |

MVH-120GH — GENERAL INFORMATION

Definition of Plate Compactor

The Mikasa MVH-120GH is a walk-behind, reversible plate compactor design for the compaction of sand, clay and asphalt. This plate compactor is a powerful compacting tool capable of applying a tremendous force in consecutive high frequency vibrations to a soil surface. Its applications include soil compacting for road, embankments and reservoirs as well as backfilling for gas pipelines, water pipelines and cable installation work.

Vibratory Plates

The vibratory plates of the MVH-120GH produce low amplitude high frequency vibrations, designed to compact granular soils.

The resulting vibrations cause forward motion. The engine and handle are vibration-isolated from the vibrating plate. The heavier the plate, the more compaction force it generates.

Reversible Vibratory Plates

Reversible vibratory plates have two eccentric weights that allow a smooth transition for forward and reverse travel, plus increased compaction force as the result of dual weights.

Due to their weight and force, reversible plates are ideal for semi-cohesive soils.

Frequency/Speed

The compactor's vibrating plate has a frequency range between 2500 to 6000 vpm (vibrations per minute). The forward and reverse travel speed of the compactor is approximately 75 feet/minute (23 meters/minute).

Engine

The Mikasa MVH-120GH Plate Compactor is equipped with a Honda air-cooled, 4-cycle, gasoline engine.

Controls

Before starting the MVH-120GH Plate Compactor, identify and understand the function of the controls and components as indicated in Figure 1.

MVH-120GH — COMPONENTS (PLATE COMPACTOR)

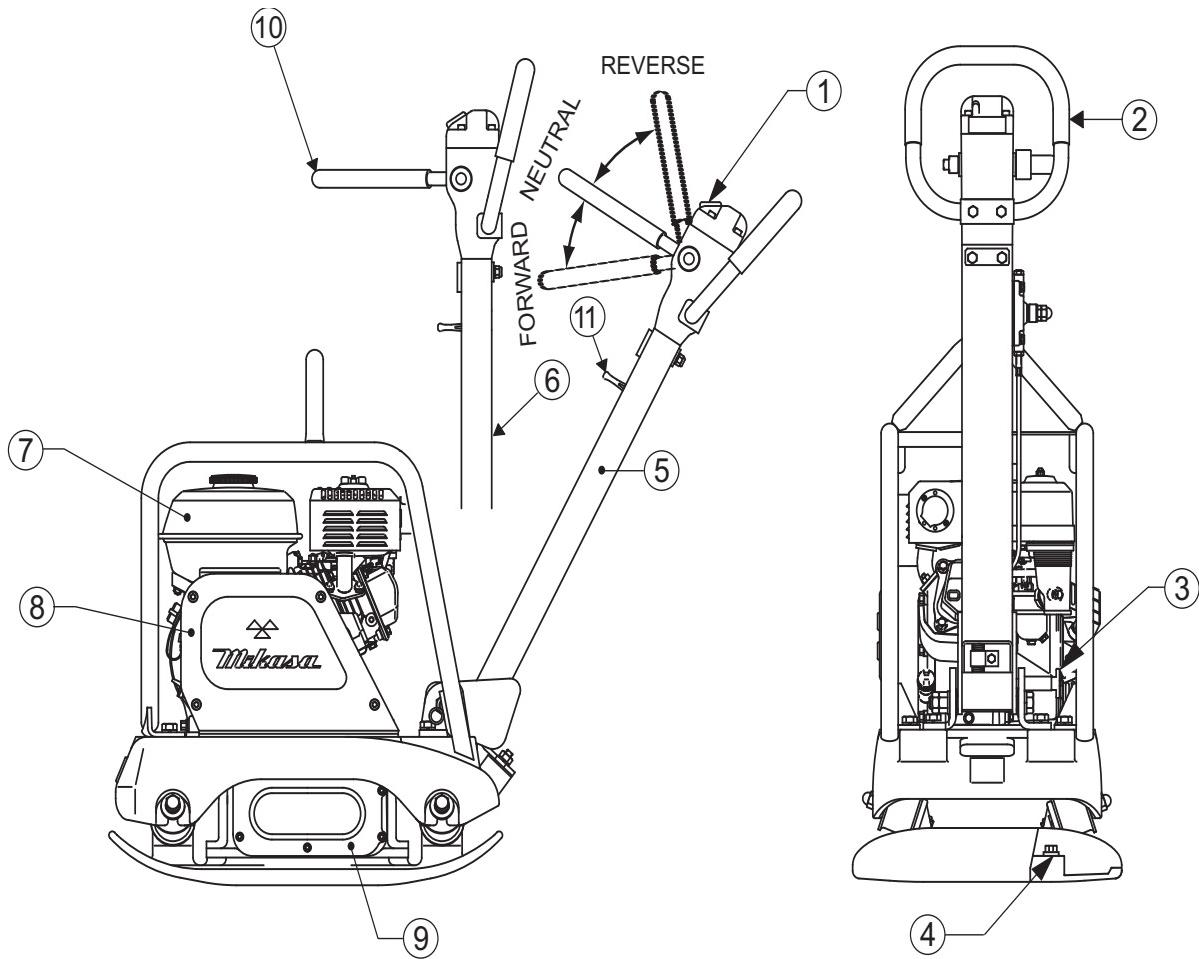


Figure 1. Compactor Controls

Figures 1 and 2 show the location of the controls, indicators and general maintenance parts. The function of each control is described below:

1. **Breather Cap** – Remove this cap to bleed (remove air) the hydraulic system. When replacing hydraulic oil, use "Shell Tellus #46 or equivalent".
2. **Hand Grip** – When operating the compactor use this hand grip to maneuver the compactor.
3. **Handle Lock** – Pull handle bar downward (working position), then pull handle lock to lock handle bar in place.
4. **Vibration Case Oil Level Check Plug** – Remove this plug to check the vibration case oil. Oil level should be all the way up to the filler port. When replacing vibration case oil, use 10W-30 engine oil.
5. **Handle Bar (working position)** – When operating the compactor, this handle is to be in the downward position.
6. **Handle Bar (stored position)** – When the compactor is to be **stored**, move the handle bar to the upright position.
7. **Gasoline Engine** – This plate compactor uses a HONDA GX160 engine. Refer to the HONDA owner's manual for engine information.
8. **Belt Cover** – Remove this cover to gain access to the V-belts. **NEVER** run the compactor without the V-belt cover. If the V-belt cover is not installed, your hand may get caught between the V-belt and clutch, thus causing serious injury and bodily harm.
9. **Vibration Case** – Encloses the eccentric gears and counter weights.
10. **Forward & Reverse Lever** – **Push** the lever forward, the compactor will move in a forward direction. **Pull** the lever backwards, the compactor will move in backwards direction. Placing the lever in the middle (midway) will cause the compactor not to move (neutral).
11. **Throttle Control** – Move the throttle lever to the **rabbit** position for full throttle (max RPMs). For engine idle, move the throttle lever to the **turtle** position.

MVH-120GH — COMPONENTS (HONDA GX160 ENGINE)

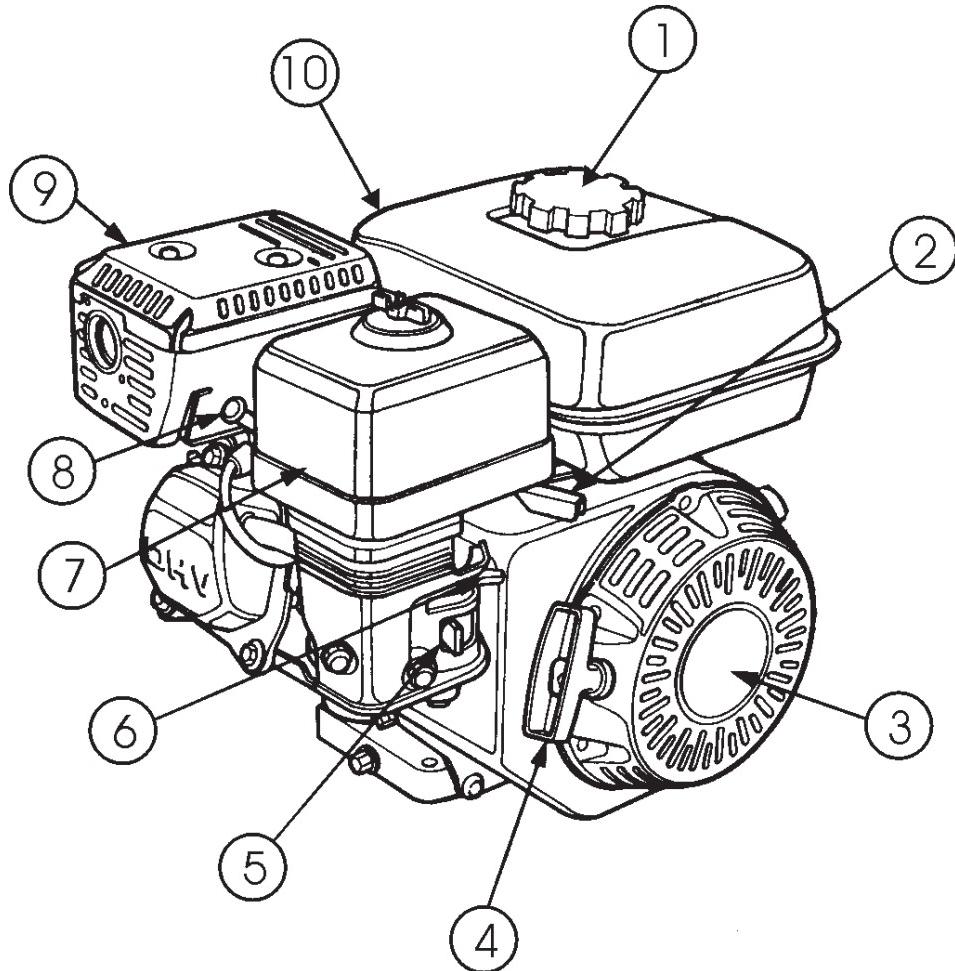


Figure 2. Engine Controls & Components

1. **Fuel Filler Cap** – Remove this cap to add unleaded gasoline to the fuel tank. Make sure cap is tighten securely. **DO NOT** over fill.
2. **Throttle Lever** – Used to adjust engine speed (fast-slow).
3. **Recoil Starter (pull rope)** – Type of engine starting method. Alternate type would be electric start (ignition key).
4. **Starter Grip** – Grip this handle to start engine. See engine starting section of this manual.
5. **Fuel Valve Lever** – **OPEN** to let fuel flow, **CLOSE** to stop the flow of fuel.
6. **Choke Lever** – Used in the starting of a cold engine, or in cold weather conditions. The choke enriches the fuel mixture.
7. **Air Cleaner** – Prevents dirt and other debris from entering the fuel system. Remove wing-nut on top of air filter cannister to gain access to filter element.
8. **Spark Plug** – Provides spark to the ignition system. Set spark plug gap to 0.6 - 0.7 mm (0.028 - 0.031 inch). Clean spark plug once a week.
9. **Muffler** – Used to reduce noise and emissions.
10. **Fuel Tank** – Holds 3.6 liters (approximately 1 gallon) of unleaded gasoline.

Before Starting

1. Read safety instructions at the beginning of manual.
2. Clean the compactor, removing dirt and dust. Particularly, the bottom of the plate, engine cooling air inlet, carburetor and air cleaner.
3. Check the air filter for dirt and dust. If the air filter is dirty, blow through the air filter cartridge from the inside, moving a jet of dry compressed air up and down until all dust is removed. Otherwise replace air filter with a new one.
4. Check carburetor for external dirt and dust. Clean with dry compressed air.
5. Check fastening nuts and bolts for tightness. Loosened screws or bolts due to vibration, could lead to unexpected accident.

Engine Oil Check

1. To check the engine oil level, place the plate compactor on secure level ground with the engine stopped.
2. Remove the filler cap/dipstick from the engine oil filler hole (Figure 3) and wipe it clean.

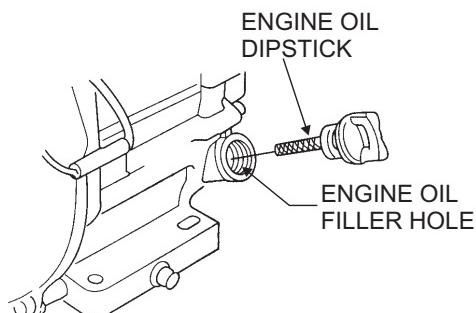


Figure 3. Engine Oil Dipstick

3. Insert and remove the dipstick without screwing it into the filler neck. Check the oil level shown on the dipstick.
4. If the oil level is low (Figure 4), fill to the edge of the oil filler hole with the recommended oil type (Table 3). Maximum oil capacity is 400 cc.

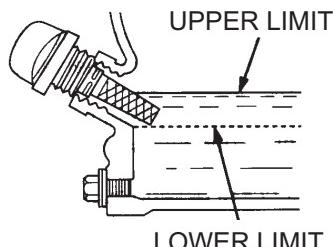
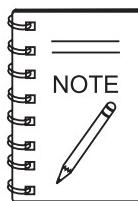


Figure 4. Engine Oil Dipstick



The Oil Alert system will automatically stop the engine before the engine falls below safe limits. Always be sure to check the engine oil level prior to starting the engine.

Table 3. Oil Type

| Season | Temperature | Oil Type |
|-------------|----------------|---------------|
| Summer | 25°C or Higher | SAE 10W-30 |
| Spring/Fall | 25°C~10°C | SAE 10W-30/20 |
| Winter | 0°C or Lower | SAE 10W-10 |

Gasoline Check

1. Remove the gasoline cap located on top of fuel tank.
2. Visually inspect to see if fuel level is low. If fuel is low, replenish with unleaded fuel.
3. When refueling, be sure to use a strainer for filtration. **DO NOT** top-off fuel. Wipe up any spilled fuel.

Vibrator Oil Check

1. Place the MVH-120GH horizontally on a flat surface.
2. Check vibrator oil level by removing bolt (vibrator oil gauge) as shown in Figure 5. Use a 14 mm wrench to remove bolt. The vibrator oil level should be maintained between the two markings as shown in Figure 5. If oil is required, replace using SAE 10W-30.

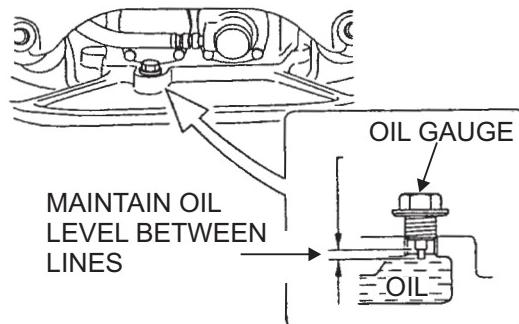


Figure 5. Vibrator Oil Gauge

MVH-120GH — INSPECTION

Vibrator Oil Check

1. With handle bar positioned vertically (storage position), remove the breather cap (Figure 6) from the breather plug.
2. Use a 24 mm wrench and remove breather plug (Figure 6). Visually check to see if hydraulic oil comes up to the oil level line that is etched on the back side of the handle.

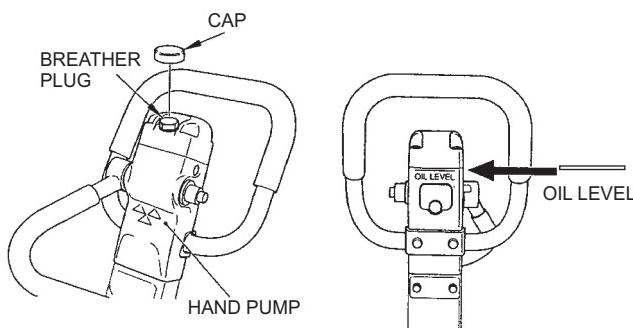


Figure 6. Vibrator Oil Gauge

2. If the hydraulic oil level is low, replace with "Shell Tellus" oil #46 or equivalent.

V-Belt Check

CAUTION

NEVER attempt to check the V-belt with the engine running. Severe injury can occur if your hand (Figure 7) gets caught between the V-belt and the clutch. Always use safety gloves.

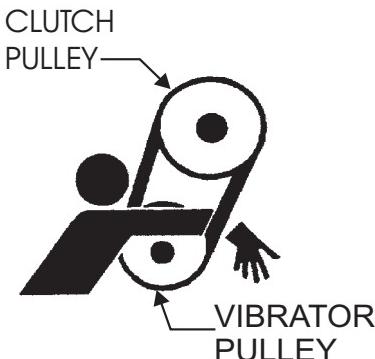


Figure 7. V-Belt Hazard

1. To check the V-belt tension (Figure 8), remove **upper** belt cover.

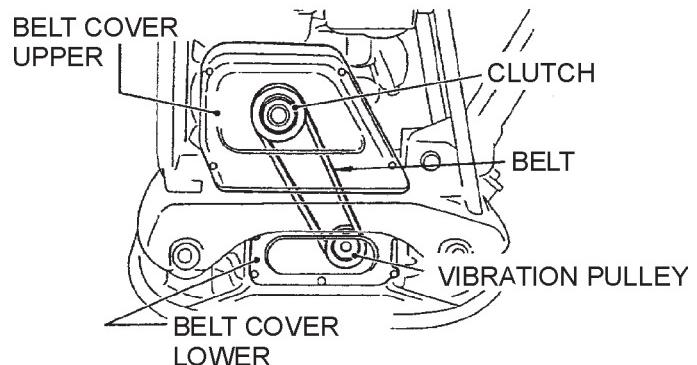


Figure 8. V-Belt Location

2. The V-belt tension is proper if the V-belt bends 10 to 15 mm (Figure 9) when depressed with finger at midway between the clutch and vibration pulley shafts.

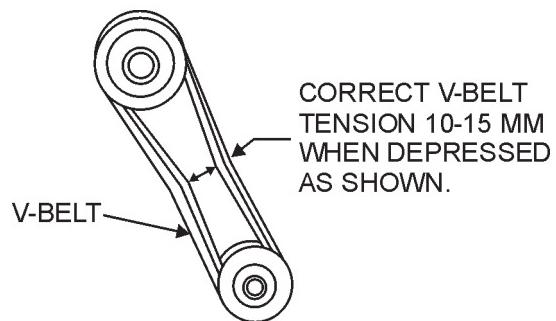


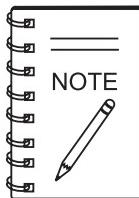
Figure 9. V-Belt Tension

3. A loose V-belt will decrease the power transmission output, causing reduced compaction and premature wear of the belt. V-belt in use is RPF-3320 (A-32 is also usable).
4. If the V-belt becomes worn or loose, replace it by using V-belt part number RPF-3320 or A-32.

MVH-120GH — INITIAL START-UP

CAUTION

DO NOT attempt to run the compactor until the Safety and Initial Start-up sections have been read.



The **CLOSED** position of the choke lever enriches the fuel mixture for starting a **COLD** engine. The **OPEN** position provides the correct fuel mixture for normal operation after starting, and for restarting a warm engine.

1. Place the **fuel valve lever** (Figure 10) in the "ON" position.

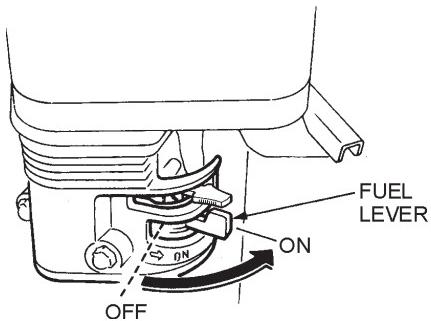


Figure 10. Fuel Valve Lever

2. Place the **Engine ON/OFF switch** (Figure 11) in the "ON" position.

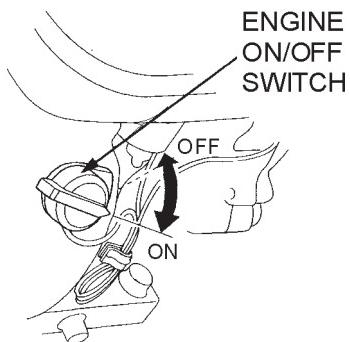


Figure 11. Engine ON/Off Switch

3. Place the **Choke Lever** (Figure 12) in the "OPEN" position.

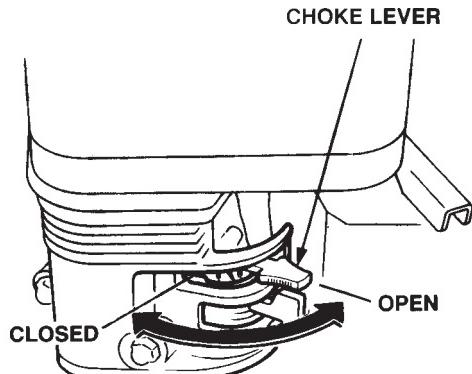


Figure 12. Choke Lever

4. Place the **throttle lever** (Figure 13) halfway between **fast** and **slow**.

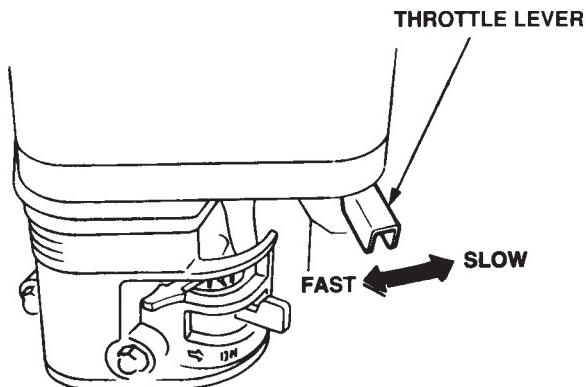
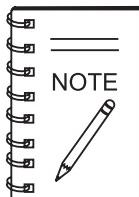


Figure 13. Engine Throttle Lever



Some compactor units may be equipped with a throttle lever (Figure 13A) that is located in the vicinity of the hydraulic pump. This throttle lever is connected to the engine throttle linkage.

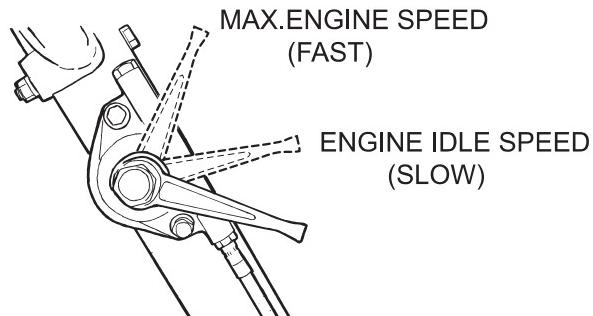


Figure 13A. Engine Throttle Lever

MVH-120GH — INITIAL START-UP

5. Grasp the starter grip (Figure 14) and slowly pull it out. The resistance becomes the hardest at a certain position, corresponding the compression point. Rewind the rope a little from that point and pull out sharply.

⚠ CAUTION

- **DO NOT** pull the starter rope all the way to the end.
- **DO NOT** release the starter rope after pulling. Allow it to rewind as soon as possible.

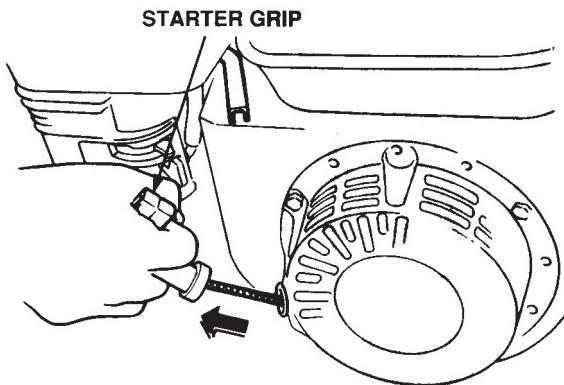


Figure 14. Starter Grip

6. If the engine has started, slowly return the choke lever (Figure 12) to the **CLOSED** position. If the engine has not started, repeat steps 1 through 5.
7. Before the compactor is put into operation, run the engine for 3 to 5 minutes.
8. Check for abnormal engine noises or fuel leaks.

Stopping the Engine

⚠ CAUTION

NEVER stop the engine suddenly while working at high speeds.

1. Place the **throttle lever** (Figure 13 or 13A) in **slow** position, and listen for the engine speed to decrease.
2. Place the **engine ON/OFF switch** (Figure 11) in the "**OFF**" position.
3. Place the **fuel valve lever** (Figure 10) in the "**OFF**" position.

Operation

CAUTION

Make sure to follow all safety rules referenced in the safety section of this manual before operating compactor. Keep work area clear of debris and other objects that could cause damage to the compactor or bodily injury.

1. Grasp the compactor's hand grip (Figure 15), and move the engine throttle lever quickly from the **turtle** position (idle) to the **rabbit** position (full throttle) position.
2. Run the compactor at full throttle (3,600 RPM's), the centrifugal clutch will automatically engage when the engine speed reaches 2,300 RPM.



Always move the throttle lever quickly without hesitation, because increasing the engine speed slowly causes the clutch to slip.

3. To make the compactor move in the forward direction push the travel lever (Figure 15) forward.

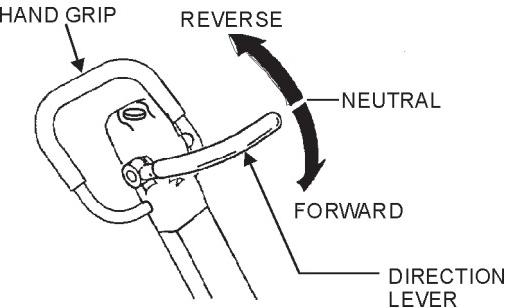


Figure 15. Direction Lever

4. To make the compactor move in the reverse direction pull the travel lever (Figure 15) backwards.
5. Firmly grasp the compactor's hand grip, the compactor will begin moving in the desired position when the direction lever has been placed in the desired position.
6. Slowly walk behind the compactor and be on the lookout for any large objects or foreign matter that might cause damage to the compactor or bodily injury.

CAUTION

- Moving the direction lever back and forth a few times after the engine has been turned off, will cause the lever to be locked in the forward position.
 - **DO NOT** try to operate lever forcibly. The direction lever will operate normally when the engine is started and the compactor is in action.
7. Compactor traveling speed may drop on soils which contain clay, however there may be cases where traveling speed drops because the compaction plate does not leave the ground surface easily due to the composition of the soil. To rectify this problem do the following:
 - Check the bottom plate to see if clay or similar material has been lodged in the plate mechanism. If so, wash with water and remove.
 - Keep in mind that the compactor does not work as efficiently on clay or soils that have a high moisture content level.
 - If the soil has a high moisture level, dry soil to appropriate moisture content level or carry out compaction twice.

⚠ CAUTION

Inspection and other services should **always** be carried out on solid and level ground with the engine shut down.

Inspection and Maintenance Service Tables.

- To make sure your plate compactor is always in good working condition before using, carry out the maintenance inspection in accordance with Tables 4 through 6.

TABLE 4. MACHINE INSPECTION

| Item | Hours of Operation |
|-------------------------------------|--------------------------------------|
| Starting check | Every 8 hours (every day) |
| Loosened or lost screws | Every 8 hours (every day) |
| Damaged parts | Every 8 hours (every day) |
| Function of controlling system part | Every 8 hours (every day) |
| Hydraulic system leak | Every 100 hours |
| Vibrator oil check | Every 300 hours |
| Vibrator oil replacement | Every 100 hours |
| Hydraulic oil check | Every 200 hours then every 1000 hrs. |
| V-belt (clutch) check | Every 200 hour |

⚠ CAUTION

These inspection intervals are for operation under normal conditions. Adjust your inspection intervals based on the number of hours plate compactor is in use, and particular working conditions.

⚠ CAUTION

Fuel piping and connections should be replaced every 2 years.

Daily Service

- Check for leakage of fuel or oil.
- Check for loose screws including tightness. See Table 6 below (tightening torque), for retightening:

TABLE 6.
TIGHTENING TORQUE (in. kg/cm) Diameter

| Material | 6mm | 8mm | 10mm | 12mm | 14mm | 16mm | 18mm | 20mm |
|----------|--|-----|------|-------|-------|-------|-------|-------|
| 4T | 70 | 150 | 300 | 500 | 750 | 1,100 | 1,400 | 2,000 |
| 6-8T | 100 | 250 | 500 | 800 | 1,300 | 2,000 | 2,700 | 3,800 |
| 11T | 150 | 400 | 800 | 1,200 | 2,000 | 2,900 | 4,200 | 5,600 |
| * | 100 (6mm) 300 ~ 350 (8mm) 650 ~ 700 (10mm) | | | | | | | |

* (In case counter-part is of aluminum)

(Threads in use with this machine are all right handed)

Material and quality of material is marked on each bolt, and screw.

TABLE 5. ENGINE CHECK

(For details, see separate Engine Manual)

| Item | Hours of Operation |
|------------------------------------|--|
| Leakage of oil or fuel | Every 8 hours (every day) |
| Tightness of fastening threads | Every 8 hours (every day) |
| Engine oil check and replenishment | Every 8 hours (every day)(Replenish to specified max. level) |
| Engine oil replenishment | At first 20 hours, then every 100 hours |
| Air cleaner cleaning | Every 50 hours |

- Remove soil and clean the bottom of compaction plate.
- Check hydraulic pump, piping and hose for any leakage. A loosened hydraulic hose can be a cause for leakage. Check hydraulic hose connections with wrench applied for tightness.
- Check engine oil.

Engine Oil Replacement:

1. Replace engine oil, first in 20 hours of operation and every 100 hours afterwards.
2. Oil may be drained more easily when it is warm after operation (For more details, see separate HONDA Owner's Manual).

Air Filter

1. The air filter element should be cleaned because a clogged air cleaner can cause poor engine starting, lack of power and shorten engine life substantially.

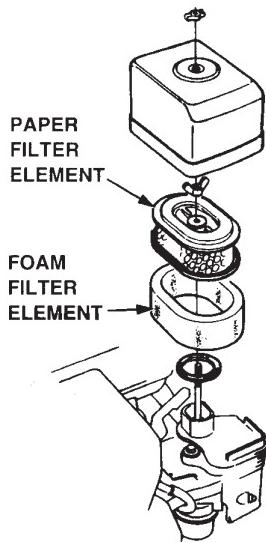


Figure 16. Air Filter

2. To clean or replace air filter, loosen the wing nut on the air filter housing (Figure 16). Remove the cover and take out air filter cartridge. If only cleaning of the air filter is desired, blow through the air filter cartridge from the inside, moving a jet of dry compressed air up and down until all dust is removed.

CAUTION

NEVER attempt to check the V-belt with the engine running. Severe injury can occur if your hand gets caught between the V-belt and the clutch. Always use safety gloves.

Checking and Replacing the V-Belt and Clutch

1. After 200 hours of operation, remove the upper belt cover to check the V-belt tension. Tension is proper if the belt bends about 10 mm when depressed strongly with finger between shafts. Loose or worn V-belts reduce power transmission efficiency, causing weak compaction and reducing the life of the belt itself.

Replacing the V-belt

Remove the upper and lower belt covers. Engage an offset wrench (13 mm) or the like to vibrator pulley (lower) fastening bolt. Engage waste cloth or the like at midway of V-belt on the left side and while pulling it back strongly, rotate the offset wrench clockwise so that the V-belt will come off.

Reinstalling the V-belt

Engage V-belt to lower vibrator pulley and push the V-belt to left side of upper clutch. In the same manner as in removal, rotate offset wrench clockwise so that the V-belt goes back on.

Checking Clutch

Check the clutch simultaneously with V-belt checking. With belt removed, visually check outer drum of the clutch for seizure and "V" groove for wear or damage. Clean the "V" groove as necessary. Regularly check the lining or shoe for wear. If the shoe is worn, power transmission becomes deficient and slipping will result.

CAUTION

Whenever the compactor's vibration becomes weak or lost during normal operation regardless of operation hours, check the V-belt and clutch immediately.

Vibrator Oil Level Check

CAUTION

Always clean the area around the vibrator oil level check hole before removing oil check plug. This will prevent dirt and debris from entering the system.

1. In every 300 hours of operation, with the machine positioned horizontally, remove vibrator oil level check plug (Figure 5) off vibrator (14 mm wrench) and see if oil is up to filler port. Be sure to clean area around check hole to prevent dirt and dust from entering.
2. In every 300 hours of operation, replace oil (capacity 400 cc). For draining oil through level check hole, have the machine inclined with a sleeper or the like placed under the compaction plate on opposite side.
* Use engine oil 10W-30 for this lubrication.

⚠ CAUTION

Make sure hydraulic oil in hand pump is at a normal save operating level. **DO NOT** over fill. Over filling (excessive oil) will cause excess oil to blow out of breather plug.

Hydraulic Oil

Check hydraulic oil in every 100 hours of operation. With handle bar positioned vertically (storage position), remove breather plug (Figure 1) off the top of hydraulic pump and check for proper oil level.

Replace hydraulic oil after first 200 hours and in every 1,000 hours of operation.

Replacing Hydraulic Oil

1. After removing plug cap of hand pump (Figure 6), remove plug of breather (24 mm wrench) and disconnect vibrator side of hydraulic hose (Figure 17) at vibrator cylinder. With travel lever placed in the **FORWARD** position, drain hydraulic oil in the pump.

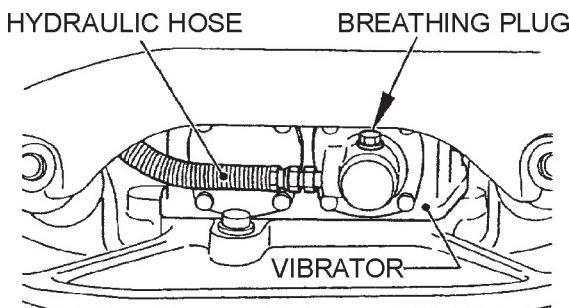


Figure 17. Hydraulic Hose

2. After draining, reconnect the hydraulic hose to vibrator.
3. Fill oil through breather hole of hand pump. (capacity: about 300 cc). Use **Shell Tellus Oil #46** or equivalent.
4. Removing breather plug at vibrator cylinder causes oil to flow out of breather hole in a while. When aeration disappears, replace the plug and tighten securely.
5. Replace breather plug of hand pump and fit the plug cap. After making sure that oil in pump is at proper level, replace the breather plug.

Troubleshooting

See Tables 7 (engine) and 8 (plate compactor) for engine and plate compactor troubleshooting guide.

MVH-120GH — PREPARATION FOR LONG-TERM STORAGE

Pump Storage

For storage of the pump for over 30 days, the following is required:

- Drain the fuel tank completely.
- Run the engine until the fuel in the injection system is completely consumed.
- Completely drain the oil from the engine crankcase and follow procedures described in the **HONDA** engine Owner's Manual for engine storage.
- Completely drain the compactor's hydraulic oil from the vibrating case.
- Clean entire plate compactor, especially the bottom plate, removing all dirt and foreign matter.
- Cover plate compactor and engine with plastic covering or equivalent and store in a clean, dry place.

MVH-120GH — TROUBLESHOOTING (ENGINE)

TABLE 7. ENGINE TROUBLESHOOTING

| SYMPTOM | POSSIBLE CAUSE | SOLUTION |
|---|---|--|
| Difficult to start, "fuel is available, but no spark at spark plug". | Spark plug bridging? | Check gap, insulation or replace spark plug. |
| | Carbon deposit on spark plug? | Clean or replace spark plug. |
| | Short circuit due to deficient spark plug insulation? | Check spark plug insulation, replace if worn. |
| | Improper spark plug gap? | Set to proper gap. |
| Difficult to start, "fuel is available, and spark is present at the spark plug". | ON/OFF switch is shorted? | Check switch wiring, replace switch. |
| | Ignition coil defective? | Replace ignition coil. |
| | Improper spark gap, points dirty? | Set correct spark gap and clean points. |
| | Condenser insulation worn or short circuiting? | Replace condenser. |
| | Spark plug wire broken or short circuiting? | Replace defective spark plug wiring. |
| Difficult to start, "fuel is available, spark is present and compression is normal" | Wrong fuel type? | Flush fuel system, and replace with correct type of fuel. |
| | Water or dust in fuel system? | Flush fuel system. |
| | Air cleaner dirty? | Clean or replace air cleaner. |
| Difficult to start, "fuel is available, spark is present and compression is low" | Suction/exhaust valve stuck or protruded? | Reseat valves. |
| | Piston ring and/or cylinder worn? | Replace piston rings and or piston. |
| | Cylinder head and/or spark plug not tightened properly? | Torque cylinder head bolts and spark plug. |
| | Head gasket and/or spark plug gasket damaged? | Replace head and spark plug gaskets. |
| No fuel present at carburetor. | Fuel not available in fuel tank? | Fill with correct type of fuel. |
| | Fuel cock does not open properly? | Apply lubricant to loosen fuel cock lever, replace if necessary. |
| | Fuel filter clogged? | Replace fuel filter. |
| | Fuel tank cap breather hole clogged? | Clean or replace fuel tank cap. |
| | Air in fuel line? | Bleed fuel line. |

MVH-120GH — TROUBLESHOOTING (ENGINE)

TABLE 7. ENGINE TROUBLESHOOTING (CONTINUED)

| SYMPTOM | POSSIBLE CAUSE | SOLUTION |
|--|--|---|
| "Weak in power". Compression is proper and does not misfire. | Air cleaner not clean? | Clean or replace air cleaner |
| | Improper level in carburetor? | Check float adjustment, re-build carbureator. |
| | Defective Spark plug? | Clean or replace spark plug. |
| "Weak in power". Compression is proper but misfires. | Water in fuel system? | Flush fuel system, and replace with correct type of fuel. |
| | Dirty spark plug? | Clean or replace spark plug. |
| | Ignition coil defective? | Replace ignition coil. |
| Engine overheats. | Spark plug heat value improper? | Replace with correct type of spark plug. |
| | Correct type of fuel? | Replace with correct type of fuel |
| | Cooling fins dirty? | Clean cooling fins. |
| Rotational speed fluctuates. | Governor adjusted correctly? | Adjust governor. |
| | Governor spring defective? | Replace governor spring. |
| | Fuel flow restricted? | Check entire fuel system for leaks or clogs. |
| Recoil starter malfunction. | Recoil mechanism clogged with dust and dirt? | Clean recoil assembly with soap and water. |
| | Spiral spring loose? | Replace spiral spring. |

MVH-120GH — TROUBLESHOOTING (PLATE COMPACTOR)

TABLE 8. PLATE COMPACTOR TROUBLESHOOTING

| SYMPTOM | POSSIBLE CAUSE | SOLUTION |
|---|---|---|
| Travel speed too low, and vibration is weak. | Engine speed too low? | Set engine speed to correct RPM. |
| | Clutch slips? | Check or replace clutch. |
| | V-belt slips? | Adjust or replace V-belt. |
| | Excessive oil in vibrator? | Drain excess oil and fill to proper level. |
| | Malfunction in vibrator housing? | Check eccentric, gears and counter weights. |
| Travels forward or reverse, but impossible to switch direction. | Directional components defective? | Check all directional components. |
| | Reversing lever adjustment? | Adjust or repair reversing lever. |
| | Hydraulic oil hose broken? | Repair or replace hydraulic oil hose. |
| | Aeration in hydraulic oil for reversing system? | Bleed hydraulic oil system. |
| | Check valve in hand pump clogged with dust? | Clean or replace hand pump check valve. |
| | Piston or bearing in cylinder (vibrator assy) is defective? | If worn, replace cylinder piston or bearing. |
| Does not travel either forward or reverse. | V-belt slips? | Replace V-belt. |
| | Clutch slips? | Check clutch springs and shoes. |
| | Vibrator locked? | Check vibrator housing (eccentric, gears and counterweights). |
| | Piston or bearing in cylinder defective? | If worn, replace cylinder piston or bearing. |
| Travel lever operating resistance great. | Air in hydraulic line? | Bleed hydraulic oil system. |
| | Piston or bearing in cylinder defective? | If worn, replace cylinder piston or bearing. |

MVH-120GH — EXPLANATION OF CODE IN REMARKS COLUMN

The following section explains the different symbols and remarks used in the Parts section of this manual. Use the help numbers found on the back page of the manual if there are any questions.

The contents and part numbers listed in the parts section are subject to change **without notice**. Multiquip does not guarantee the availability of the parts listed.

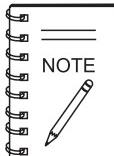
Sample Parts List:

| NO. | PART NO. | PART NAME | QTY. | REMARKS |
|-----|----------|----------------------|----------|---------------------|
| 1 | 12345 | BOLT | 1 | INCLUDES ITEMS W/* |
| 2* | | WASHER, 1/4 IN. | | NOT SOLD SEPARATELY |
| 2* | 12347 | WASHER, 3/8 IN. | 1 | MQ-45T ONLY |
| 3 | 12348 | HOSE | A/R | MAKE LOCALLY |
| 4 | 12349 | BEARING | 1 | S/N 2345B AND ABOVE |

NO. Column

Unique Symbols - All items with same unique symbol (*, #, +, %, or >) in the number column belong to the same assembly or kit, which is indicated by a note in the "Remarks" column.

Duplicate Item Numbers - Duplicate numbers indicate multiple part numbers are in effect for the same general item, such as different size saw blade guards in use or a part that has been updated on newer versions of the same machine.



When ordering a part that has more than one item number listed, check the remarks column for help in determining the proper part to order.

PART NO. Column

Numbers Used - Part numbers can be indicated by a number, a blank entry, or TBD.

TBD (To Be Determined) is generally used to show a part that has not been assigned a formal part number at time of publication.

A blank entry generally indicates that the item is not sold separately or is not sold by Multiquip. Other entries will be clarified in the "Remarks" Column.

QTY. Column

Numbers Used - Item quantity can be indicated by a number, a blank entry, or A/R.

A/R (As Required) is generally used for hoses or other parts that are sold in bulk and cut to length.

A blank entry generally indicates that the item is not sold separately. Other entries will be clarified in the "Remarks" Column.

REMARKS Column

Some of the most common notes found in the "Remarks" Column are listed below. Other additional notes needed to describe the item can also be shown.

Assembly/Kit - All items on the parts list with the same unique symbol will be included when this item is purchased.

Indicated by:

"INCLUDES ITEMS W/(unique symbol)"

Serial Number Break - Used to list an effective serial number range where a particular part is used.

Indicated by:

"S/N XXXXX AND BELOW"

"S/N XXXX AND ABOVE"

"S/N XXXX TO S/N XXX"

Specific Model Number Use - Indicates that the part is used only with the specific model number or model number variant listed. It can also be used to show a part is NOT used on a specific model or model number variant.

Indicated by:

"XXXXX ONLY"

"NOT USED ON XXXX"

"Make/Obtain Locally" - Indicates that the part can be purchased at any hardware shop or made out of available items. Examples include battery cables, shims, and certain washers and nuts.

"Not Sold Separately" - Indicates that an item cannot be purchased as a separate item and is either part of an assembly/kit that can be purchased, or is not available for sale through Multiquip.

MVH-120GH — SUGGESTED SPARE PARTS

MVH-120GH PLATE COMPACTOR 1 TO 3 UNITS WITH HONDA GX160 ENGINE

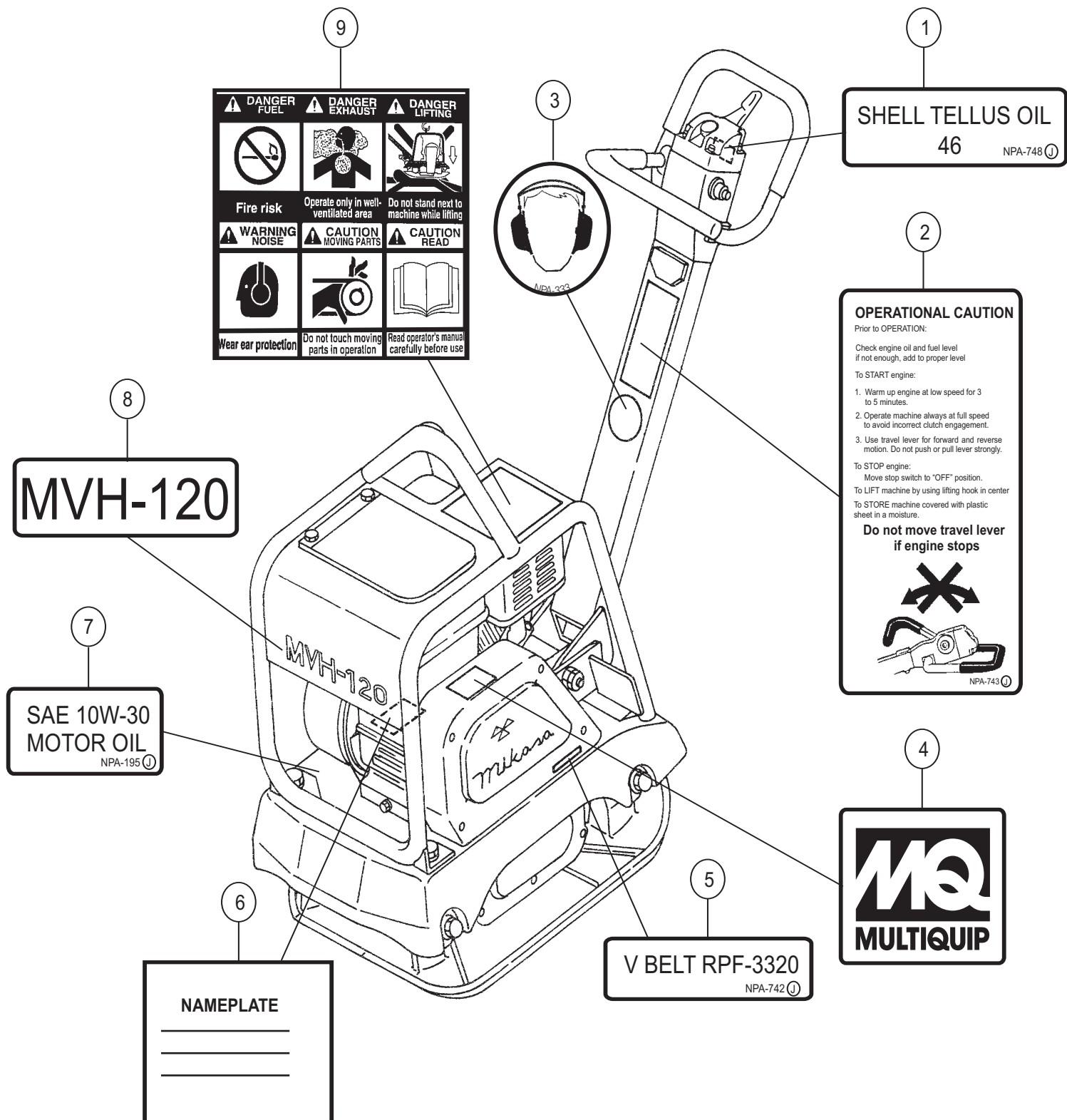
| Qty. | P/N | Description | Remarks |
|------|-------------|--------------------------------|---|
| 3 | 070100322 | V-BELT | |
| 1 | 458337770 | CLUTCH ASSY. | |
| 2 | 956100035 | THROTTLE WIRE | MVH-120GH S/N L3080 AND BELOW |
| 2 | 956100041 | THROTTLE WIRE | MVH-120GH S/N L3081 AND ABOVE |
| 1 | 956200050 | THROTTLE LEVER ASSY. | MVH-120GH S/N L3080 AND BELOW |
| 1 | 362910060 | THROTTLE LEVER ASSY. | MVH-120GH S/N L3081 AND ABOVE |
| 5 | 9807955846 | SPARK PLUG | |
| 1 | 36100ZH7003 | SWITCH ASSY, ENGINE STOP | GX160K1SM12 |
| 1 | 36100ZF6P81 | SWITCH ASSY, ENGINE STOP | GX160U1SM12, GX160U1SMX4 S/N 114582 AND BELOW |
| 1 | 36100ZF6P82 | SWITCH ASSY, ENGINE STOP | GX160U1SM12, GX160U1SMX4 S/N 114583 AND ABOVE |
| 2 | 17218ZE1505 | OUTER AIR ELEMENT | |
| 1 | 17620Z0T305 | CAP, FUEL TANK | GX160K1SM12 |
| | | |GX160U1SM12, GX160U1SMX4 S/N 1125014 AND BELOW |
| 1 | 17620Z4H000 | CAP, FUEL TANK | GX160U1SM12, GX160U1SMX4 S/N 1125015 AND ABOVE |
| 1 | 17672ZE2W01 | FUEL TANK FILTER | GX160K1SM12 |
| | | |GX160U1SM12, GX160U1SMX4 S/N 1125014 AND BELOW |
| 1 | 17672Z4H000 | FUEL TANK FILTER | GX160U1SM12, GX160U1SMX4 S/N 1125015 AND ABOVE |
| 1 | 30500ZE1043 | IGNITION COIL ASSY | GX160K1SM12 S/N 8954625 AND BELOW |
| 1 | 28462ZH8003 | ROPE, STARTER | |



Part numbers on this Suggested Spare Parts List may supersede/replace the P/N shown in the text pages of this book.

MVH-120GH — NAME PLATE AND DECALS

NAME PLATE AND DECALS



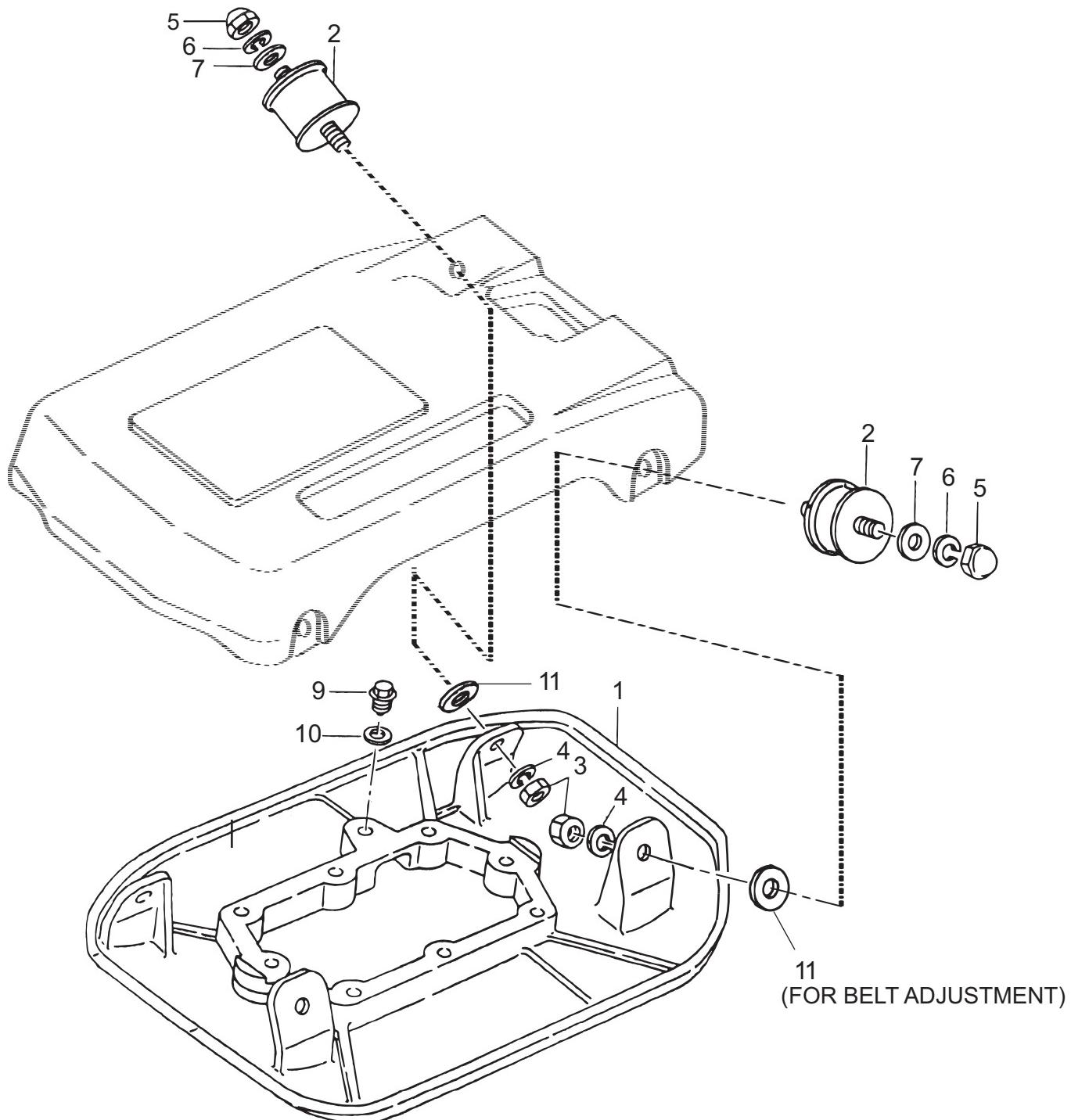
MVH-120GH — NAME PLATE AND DECALS

NAME PLATE AND DECALS

| <u>NO</u> | <u>PART NO</u> | <u>PART NAME</u> | <u>QTY.</u> | <u>REMARKS</u> |
|-----------|----------------|----------------------------|-------------|-----------------------------------|
| 1* | 920207480 | DECAL, SHELL TELLUS OIL 46 | 1 | |
| 2* | 950207430 | DECAL, CAUTION (MVH-120) | 1 | |
| 3* | 920203330 | EAR PROTECTION LABEL | 1 | |
| 4* | 920201580 | DECAL, MQ MARK 71X55 | 1 | |
| 5* | 920207420 | DECAL, V- BELT RPF-3320 | 1 | |
| 6 | | PLATE, SERIAL NO. | 1 | CONTACT MQ PARTS DEPARTMENT |
| 7* | 920201950 | DECAL, MOTOR OIL /NPA-195 | 1 | |
| 8* | 920207440 | DECAL, MODEL/MVH-120 | 1 | |
| 9* | 920207400 | DECAL, DANGER-CAUTION | 1 | |
| | DCLMVH120GH | KIT, DECAL | 1 | INCLUDES ITEMS W/ * |

MVH-120GH — VIBRATING PLATE ASSY.

VIBRATING PLATE ASSY.



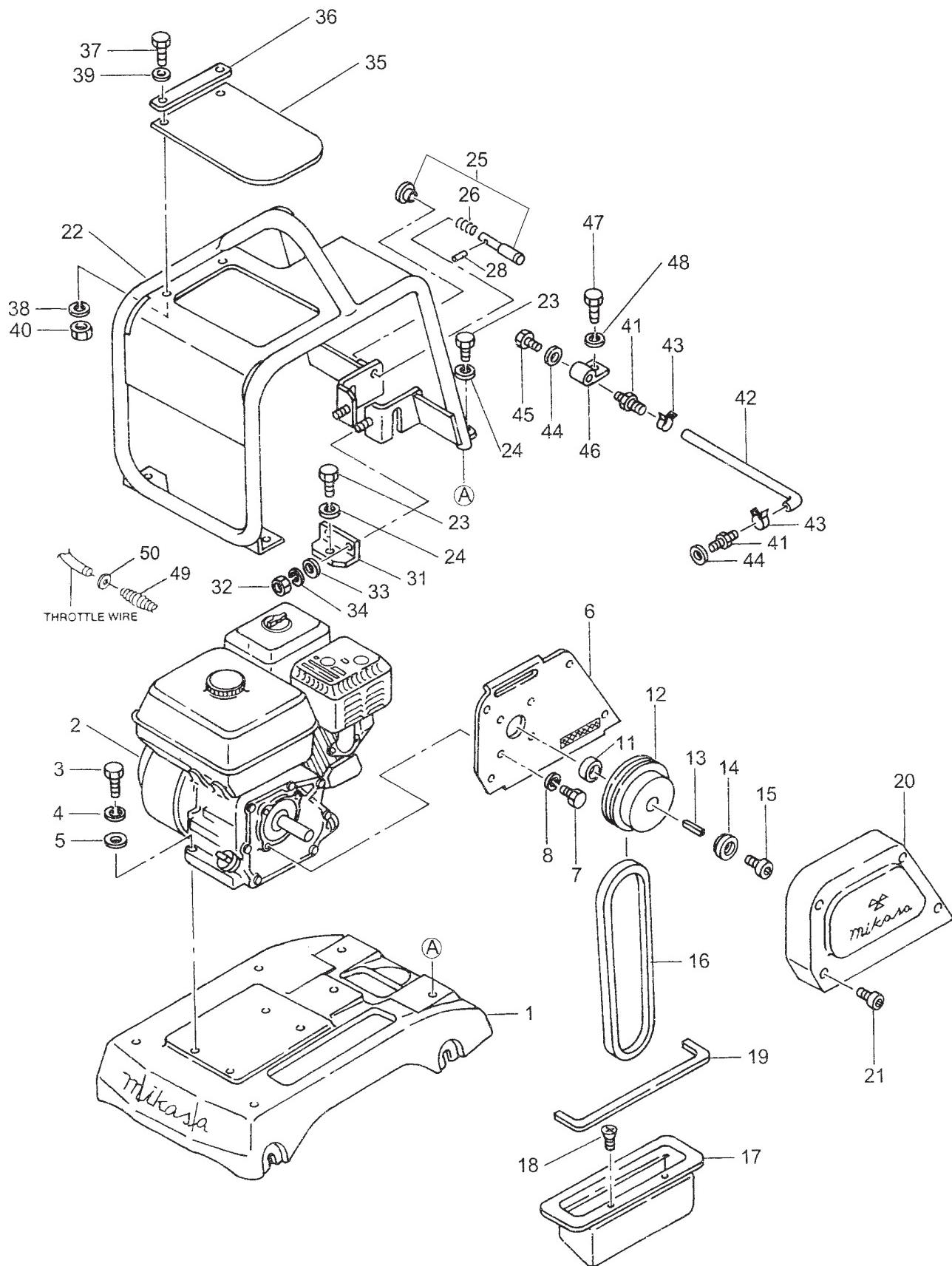
MVH-120GH — VIBRATING PLATE ASSY.

VIBRATING PLATE ASSY.

| <u>NO</u> | <u>PART NO</u> | <u>PART NAME</u> | <u>QTY.</u> | <u>REMARKS</u> |
|-----------|----------------|------------------------|-------------|--------------------|
| 1 | 458115140 | VIBRATING PLATE | 1 | |
| 2 | 458450620 | SHOCK ABSORBER | 4 | |
| 3 | 0039312000 | NUT M12 | 4 | REPLACES 020312100 |
| 4 | 030212300 | WASHER, LOCK M12 | 4 | |
| 5 | 022131210 | CAP NUT M12 | 4 | |
| 6 | 030212300 | SW M12 | 4 | |
| 7 | 952400710 | WASHER 13304 | 4 | |
| 9 | 460449160 | OIL CHANGE | 1 | |
| 10 | 953405260 | PACKING 1/4 | 1 | |
| 11 | 952401190 | WASHER 13X43X4.5 | 4 | NEW VERSION ONLY |

MVH-120GH — BODY ASSY. (OLD VERSION)

BODY ASSY. SERIAL NUMBER L3029 AND BELOW)



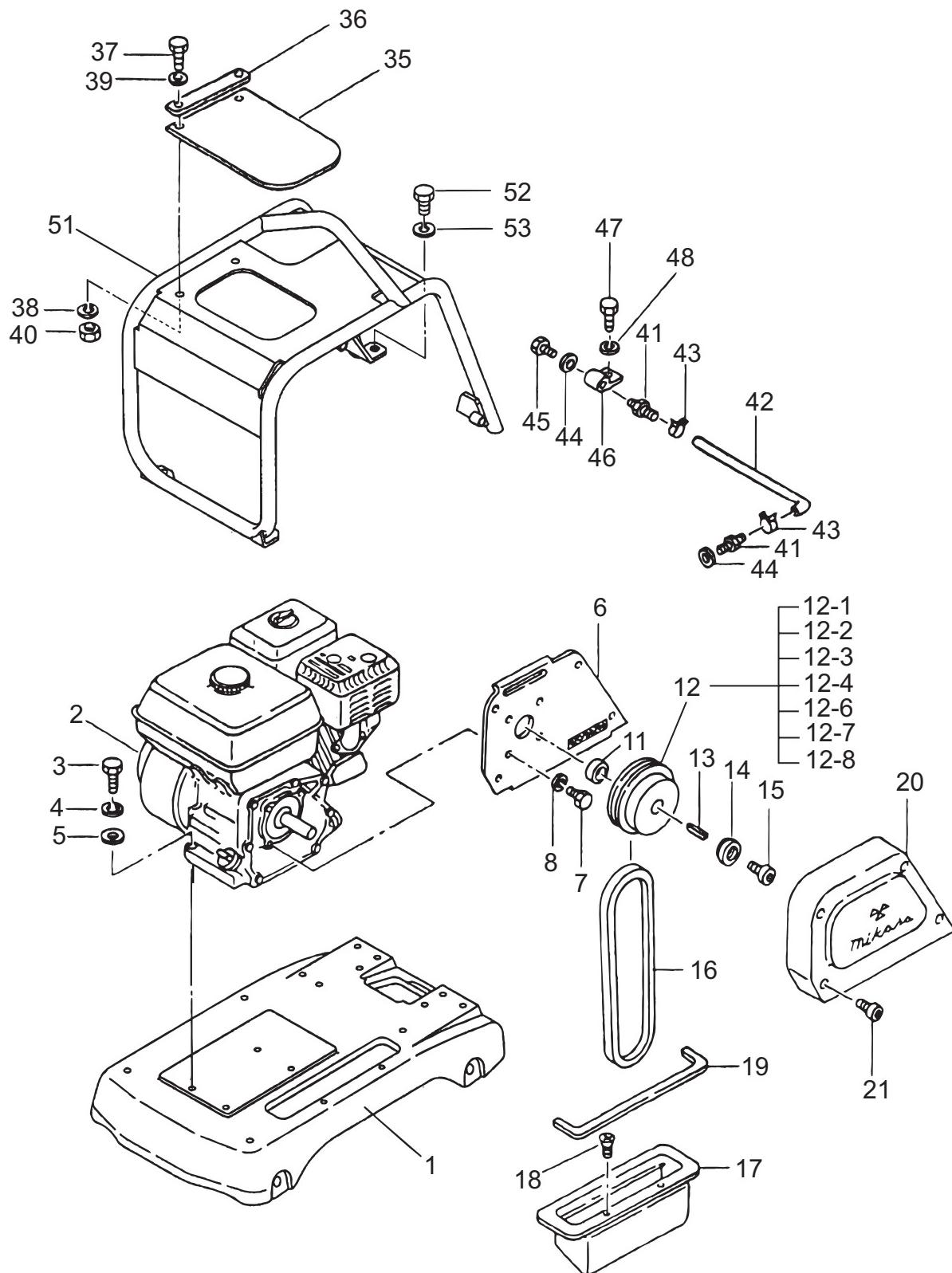
MVH-120GH — BODY ASSY. (OLD VERSION)

BODY ASSY. SERIAL NUMBER L3029 AND BELOW)

| <u>NO</u> | <u>PART NO</u> | <u>PART NAME</u> | <u>QTY.</u> | <u>REMARKS</u> |
|-----------|----------------|--------------------------------|-------------|----------------------|
| 1 | 458115160 | BASE | 1 | |
| 2 | 912216004 | ENGINE ASSY. GX160K1SM12 | 1 | S/N F-1104 to N-4264 |
| 2 | 912216012 | ENGINE ASSY. GX160U1SM12 | 1 | S/N N-4265 TO P-4377 |
| 3 | 011208035 | BOLT 8X35 T | 4 | REPLACES 001220835 |
| 4 | 030208200 | WASHER, LOCK M8 | 4 | |
| 5 | 031108160 | WASHER, FLAT M8 | 4 | |
| 6 | 458214380 | BELT COVER PLATE | 1 | S/N L3210 AND BELOW |
| 7 | 014208020 | BOLT 8X20 T | 4 | REPLACES 001220820 |
| 8 | 030208200 | WASHER, LOCK M8 | 4 | |
| 11 | 458451370 | SPACER 202512 | 1 | |
| 12 | 458337770 | CLUTCH ASSY. A112420 | 1 | |
| 13 | 0320050150 | KEY | 1 | REPLACES 951400100 |
| 14 | 458451380 | CLUTCH WASHER | 1 | |
| 15 | 014208025 | SOCKET HEAD BOLT 8X25 T | 1 | REPLACES 001520825 |
| 16 | 070100322 | V-BELT RPF-3320 | 1 | |
| 17 | 458214390 | DUST COVER | 1 | |
| 18 | 092006010 | FLAT HEAD SCREW 6X10 | 2 | |
| 19 | 458337560 | SPONGE, DUST COVER | 1 | |
| 20 | 458115190 | BELT COVER | 1 | |
| 21 | 001520852 | SOCKET HEAD BOLT 8X60 T | 4 | |
| 22 | 458115171 | GUARD FRAME | 1 | REPLACES 458115170 |
| 23 | 001221225 | BOLT 12X25 T | 5 | |
| 24 | 030212300 | WASHER, LOCK M12 | 5 | |
| 25 | 458910020 | GRIP SET | 1 | |
| 26 | 458450880 | SPRING 1.2-10-29 | 1 | |
| 28 | 025402516 | SPRING PIN 2.5 X16 | 1 | |
| 31 | 458337760 | SUPPORT | 1 | |
| 32 | 020310080 | NUT M10 | 2 | |
| 33 | 031110160 | WASHER, FLAT M10 | 2 | |
| 34 | 030210250 | WASHER, LOCK M10 | 2 | |
| 35 | 458450830 | RUBBER COVER | 1 | |
| 36 | 458450810 | PLATE, RUBBER COVER | 1 | |
| 37 | 011208025 | BOLT 8X25 T | 2 | REPLACES 001220825 |
| 38 | 030208200 | WASHER, LOCK M8 | 2 | |
| 39 | 031108160 | WASHER, FLAT M8 | 2 | |
| 40 | 022710809 | NYLON NUT M8 | 2 | |
| 41 | 15550ZK8P90 | DRAIN JOINT | 2 | |
| 42 | 15552ZB9000 | DRAIN HOSE | 1 | |
| 43 | 954010070 | HOSE BAND 11.5D | 2 | |
| 44 | 90601ZE1000 | WASHER, DRAIN PLUG | 3 | |
| 45 | 90131ZE1000 | BOLT, DRAIN PLUG | 1 | |
| 46 | 458450840 | JOINT | 1 | |
| 47 | 014208020 | BOLT 8X20 T | 1 | REPLACES 001220820 |
| 48 | 030208200 | WASHER, LOCK M8 | 1 | |
| 49 | 0830000010 | COIL SPRING | 1 | S/N G1387 AND ABOVE |
| 50 | 031104080 | WASHER, FLAT M4 | 1 | S/N G1387 AND ABOVE |

MVH-120GH — BODY ASSY. (NEW VERSION)

BODY ASSY. BODY ASSY. SERIAL NUMBER L3030 AND ABOVE)



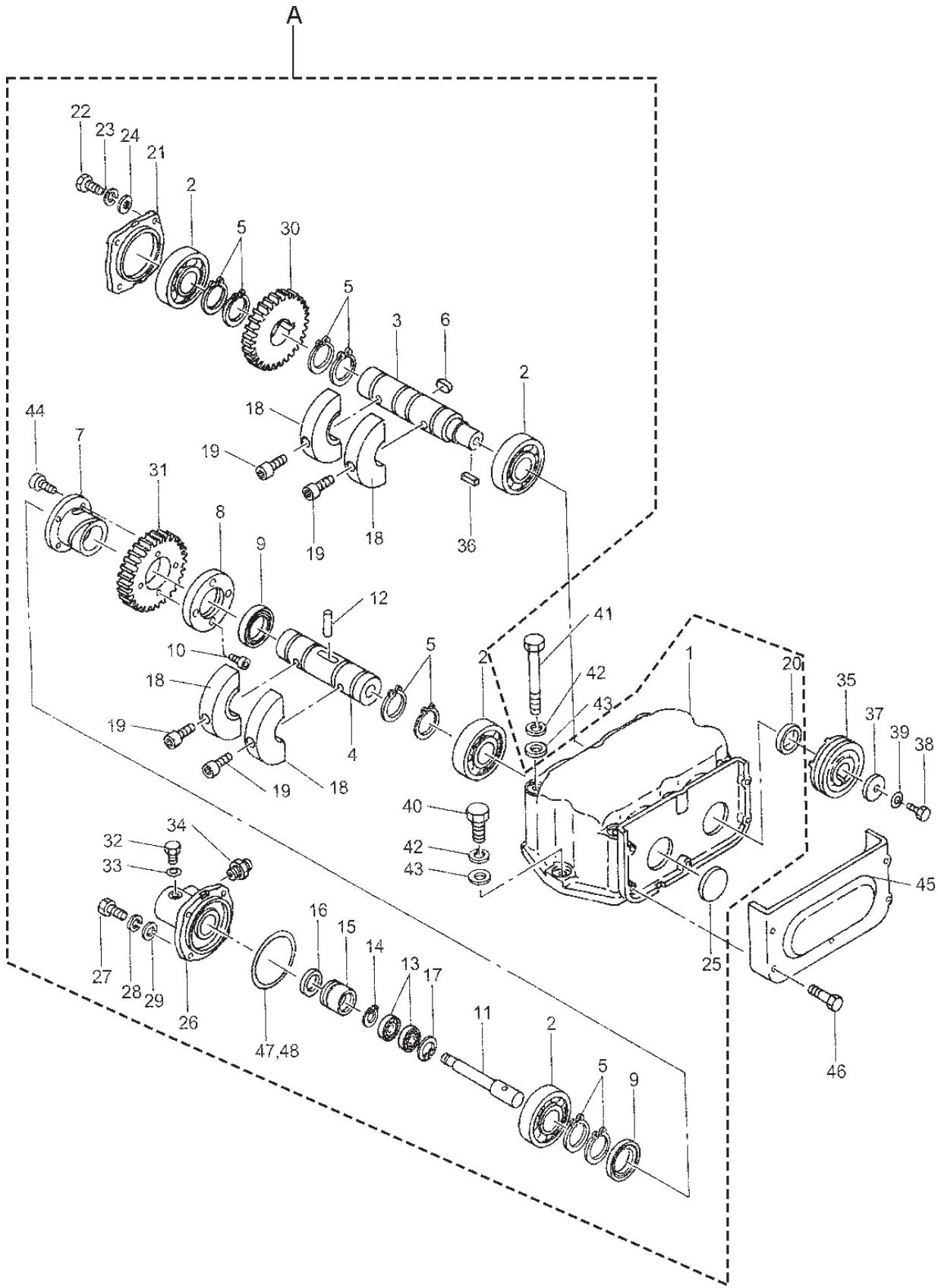
MVH-120GH — BODY ASSY. (NEW VERSION)

BODY ASSY. BODY ASSY. SERIAL NUMBER L3030 AND ABOVE)

| <u>NO</u> | <u>PART NO</u> | <u>PART NAME</u> | <u>QTY.</u> | <u>REMARKS</u> |
|-----------|----------------|--------------------------------|-------------|----------------------|
| 1 | 458117340 | BASE, SEPARATE HANDLE TYPE | 1 | |
| 2 | 912216010 | ENGINE ASSY. GX160U1SMX4 | 1 | S/N P-4378 AND ABOVE |
| 3 | 011208035 | BOLT 8X35 T | 4 | |
| 4 | 030208200 | WASHER, LOCK M8 | 4 | |
| 5 | 031108160 | WASHER, FLAT M8 | 4 | |
| 6 | 458214383 | BELT COVER PLATE | 1 | S/N L-3211 AND ABOVE |
| 7 | 014208020 | BOLT 8X20 T | 4 | REPLACES 001220820 |
| 8 | 030208200 | WASHER, LOCK M8 | 4 | |
| 11 | 458451370 | SPACER 202512 | 1 | |
| 12 | 458337770 | CLUTCH ASSY A1-124-20 | 1 | INCLUDES ITEMS W/ # |
| 12-1 | 941040510 | CLUTCH SHAFT S20D-45 | 1 | |
| 12-2 | 941010390 | CLUTCH PULLEY A1-124 | 1 | |
| 12-3 | 941020030 | CLUTCH SHOE T90T | 3 | |
| 12-4 | 941030230 | CLUTCH SPRING | 2 | |
| 12-6 | 080200300 | STOP RING S-30 | 1 | |
| 12-7 | 080600550 | STOP RING AR-55 | 1 | |
| 12-8 | 046006006 | BEARING 6006DDU | 1 | |
| 13 | 0320050150 | KEY | 1 | |
| 14 | 458451380 | CLUTCH WASHER | 1 | |
| 15 | 014208025 | SOCKET HEAD BOLT 8X25 T | 1 | REPLACES 001520825 |
| 16 | 070100322 | V-BELT RPF-3320 | 1 | |
| 17 | 458214390 | DUST COVER | 1 | |
| 18 | 092006010 | FLAT HEAD SCREW 6X10 | 2 | |
| 19 | 458337560 | SPONGE, DUST COVER | 1 | |
| 20 | 458115191 | BELT COVER | 1 | S/N L3211 AND ABOVE |
| 21 | 001520852 | SOCKET HEAD BOLT 8X60 T | 4 | |
| 35 | 458450830 | RUBBER COVER | 1 | |
| 36 | 458450810 | PLATE, RUBBER COVER | 1 | |
| 37 | 011208025 | BOLT 8X25 T | 2 | REPLACES 001220825 |
| 38 | 030208200 | WASHER, LOCK M8 | 2 | |
| 39 | 031108160 | WASHER, FLAT M8 | 2 | |
| 40 | 022710809 | NYLON NUT M8 | 2 | |
| 41 | 15550ZK8P90 | DRAIN JOINT | 2 | |
| 42 | 15552ZB9000 | DRAIN HOSE | 1 | |
| 43 | 954010070 | HOSE BAND 11.5D | 2 | |
| 44 | 90601ZE1000 | WASHER, DRAIN PLUG | 3 | |
| 45 | 90131ZE1000 | BOLT, DRAIN PLUG | 1 | |
| 46 | 458450840 | JOINT | 1 | |
| 47 | 014208020 | BOLT 8X20 T | 1 | REPLACES 001220820 |
| 48 | 030208200 | WASHER, LOCK M8 | 1 | |
| 51 | 458117350 | GUARD FRAME | 1 | |
| 52 | 001221225 | BOLT 12X25 T | 5 | |
| 53 | 030212300 | WASHER, LOCK M12 | 5 | |

MVH-120GH — VIBRATOR ASSY. (OLD VERSION)

VIBRATOR ASSY. (SERIAL NUMBER L3112 AND BELOW)



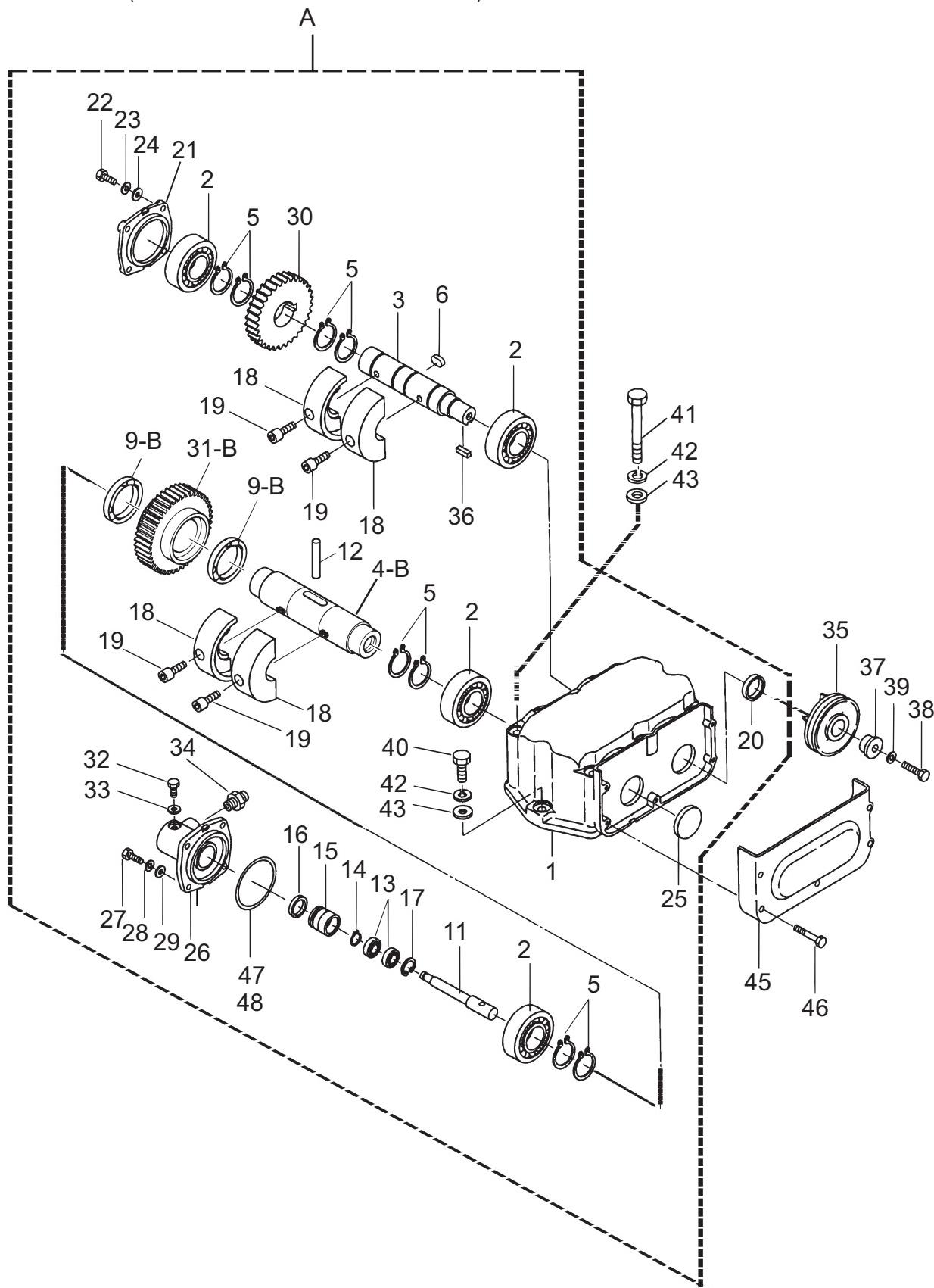
MVH-120GH — VIBRATOR ASSY. (OLD VERSION)

VIBRATOR ASSY. (SERIAL NUMBER L3112 AND BELOW)

| <u>NO</u> | <u>PART NO</u> | <u>PART NAME</u> | <u>QTY.</u> | <u>REMARKS</u> |
|-----------|----------------|-------------------------------|-------------|---------------------|
| A | 458910010 | VIBRATOR ASSY. COMPLETE | 1 | INCLUDES ITEMS W/ * |
| 1* | 458115150 | VIBRATING CASE | 1 | |
| 2* | 040306307 | BEARING 6307C4 | 4 | REPLACES 040406307 |
| 3* | 458337700 | ROTARY SHAFT, DRIVE | 1 | |
| 4* | 458337710 | ROTARY SHAFT, DRIVEN | 1 | |
| 5* | 080200350 | STOP RING S-35 | 8 | |
| 6* | 951405460 | KEY 10X8X19 RR | 1 | |
| 7* | 458337720 | CAM RING 210 | 1 | |
| 8* | 458337850 | BEARING HOLDER | 1 | |
| 9* | 040006807 | BEARING 6807 | 2 | |
| 10* | 001520630 | SOCKET HEAD BOLT 6X30 T | 4 | |
| 11* | 458337730 | PISTON ROD | 1 | |
| 12* | 025508050 | PIN 8X50 | 1 | |
| 13* | 042506000 | BEARING 6000ZZSG | 2 | |
| 14* | 080200100 | STOP RING S-10 | 1 | |
| 15* | 455435051 | PISTON, 22.4D | 1 | |
| 16* | 455010070 | PACKING USH-22. 4X30X5 | 1 | |
| 17* | 080100260 | STOP RING R-26 | 1 | |
| 18* | 458451430 | ECCENTRIC ROTATOR | 4 | |
| 19* | 009120304 | SOCKET HEAD BOLT 10X25 T | 4 | |
| 20* | 060202040 | OIL SEAL SC-28458 | 1 | |
| 21* | 458337740 | BEARING COVER | 1 | |
| 22* | 014208020 | BOLT 8X20 T | 4 | REPLACES 001220820 |
| 23* | 030208200 | WASHER, LOCK M8 | 4 | |
| 24* | 031108160 | WASHER, FLAT M8 | 4 | |
| 25* | 953405580 | SEAL CAP SC-458 | 1 | |
| 26* | 458214370 | CYLINDER | 1 | |
| 27* | 014208020 | BOLT 8X20 T | 4 | |
| 28* | 030208200 | WASHER, LOCK M8 | 4 | |
| 29* | 031108160 | WASHER, FLAT M8 | 4 | |
| 30* | 460333000 | GEAR (DRIVE) | 1 | |
| 31* | 458337840 | GEAR (DRIVEN) | 1 | |
| 32* | 001200812 | BOLT 8X12 | 1 | |
| 33* | 953404600 | COPPER PACKING 8X16X2 | 1 | |
| 34* | 954010020 | CONNECTOR PT, PF1/4 | 1 | |
| 35 | 458337750 | PULLEY 80D | 1 | |
| 36* | 951400990 | KEY 7X7X20 | 1 | |
| 37 | 952400690 | WASHER 9X3594.5 | 1 | |
| 38 | 014208020 | BOLT 8X20 T | 1 | REPLACES 001220820 |
| 39 | 030208200 | WASHER, LOCK M8 | 1 | |
| 40* | 012212035 | BOLT 12X35 T | 2 | REPLACES 001221235 |
| 41 | 001221264 | BOLT 12X120 T | 6 | |
| 42 | 030212300 | WASHER, LOCK M12 | 8 | |
| 43 | 031112230 | WASHER, FLAT M12 | 8 | |
| 44* | 014206020 | SOCKET HEAD BOLT 6X20 T | 4 | REPLACES 001520620 |
| 45 | 460212740 | BELT COVER (LOWER) | 1 | |
| 46 | 001520635 | SOCKET HEAD BOLT 6X35 T | 5 | |
| 47* | 952406170 | SHIM 70-80-0. 1T | 1 | |
| 48* | 952406180 | SHIM 70-80-0. 2T | 1 | |

MVH-120GH — VIBRATOR ASSY. (NEW VERSION)

VIBRATOR ASSY. (SERIAL NUMBER L3113 AND ABOVE)



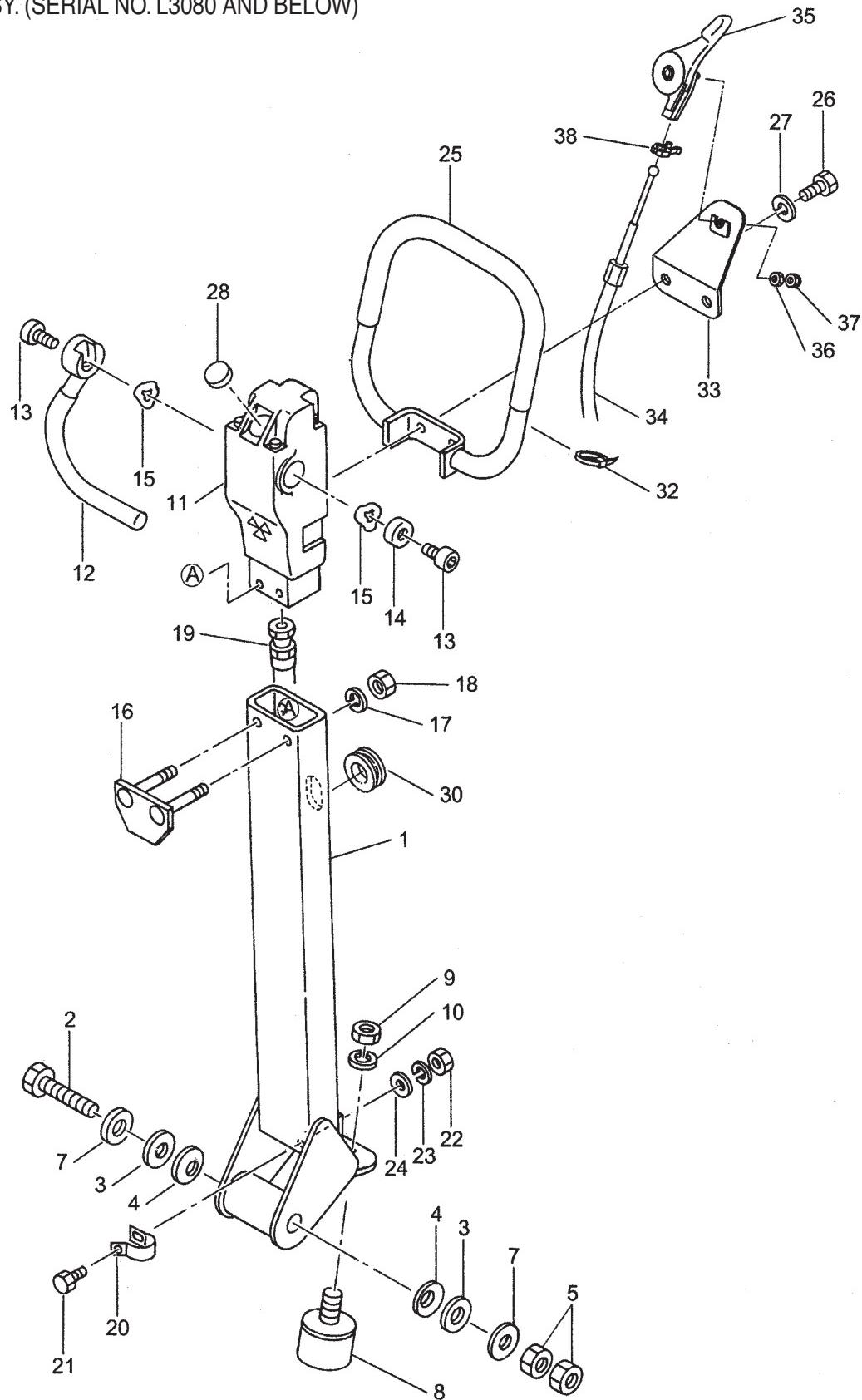
MVH-120GH — VIBRATOR ASSY. (NEW VERSION)

VIBRATOR ASSY. (SERIAL NUMBER L3113 AND ABOVE)

| <u>NO</u> | <u>PART NO</u> | <u>PART NAME</u> | <u>QTY.</u> | <u>REMARKS</u> |
|-----------|----------------|--------------------------|-------------|---------------------|
| A | 458910011 | VIBRATOR ASSY | 1 | INCLUDES ITEMS W/ # |
| 1# | 458115150 | VIBRATING CASE | 1 | |
| 2# | 040406307 | BEARING 6307C4 | 4 | |
| 3# | 458337700 | ROTARY SHAFT,DRIVE | 1 | |
| 4-B# | 458342580 | ROTARY SHAFT,DRIVEN | 1 | |
| 5# | 080200350 | STOP RING S-35 | 8 | |
| 6# | 951405460 | KEY 10X8X19 RR | 1 | |
| 9-B# | 040306907 | BEARING 6907C3 | 2 | |
| 11# | 458337730 | PISTON ROD | 1 | |
| 12# | 025508050 | PIN 8X50 | 1 | |
| 13# | 042506000 | BEARING 6000ZZSG | 2 | |
| 14# | 080200100 | STOP RING S-10 | 1 | |
| 15# | 455435051 | PISTON, 22.4D | 1 | |
| 16# | 455010070 | PACKING USH-22.4X30X5 | 1 | |
| 17# | 080100260 | STOP RING R-26 | 1 | |
| 18# | 458451430 | ECCENTRIC ROTATOR | 4 | |
| 19# | 009120304 | SOCKET HEAD BOLT 10X25 T | 4 | |
| 20# | 060202040 | OIL SEAL SC-28458 | 1 | |
| 21# | 458337740 | BEARING COVER | 1 | |
| 22# | 001220820 | BOLT 8X20 T | 4 | |
| 23# | 030208200 | WASHER, LOCK M8 | 4 | |
| 24# | 031108160 | WASHER, FLAT M8 | 4 | |
| 25# | 953405580 | SEAL CAP SC-458 | 1 | |
| 26# | 458214370 | CYLINDER | 1 | |
| 27# | 001220820 | BOLT 8X20T | 4 | |
| 28# | 030208200 | WASHER, LOCK M8 | 4 | |
| 29# | 031108160 | WASHER, FLAT M8 | 4 | |
| 30# | 460333000 | GEAR (DRIVE) | 1 | |
| 31-B# | 458342590 | GEAR(DRIVEN) | 1 | |
| 32# | 001200812 | BOLT 8X12 | 1 | |
| 33# | 953404600 | COPPER PACKING 8X16X2 | 1 | |
| 34# | 954010020 | CONNECTOR PT, PF1/4 | 1 | |
| 35 | 458337750 | PULLEY 80D | 1 | |
| 36# | 951400990 | KEY 7X7X20 | 1 | |
| 37 | 952400440 | WASHER 9X40X6 | 1 | |
| 38 | 001220820 | BOLT 8X20 T | 1 | |
| 39 | 030208200 | WASHER, LOCK M8 | 1 | |
| 40# | 001221240 | BOLT 12X40 T | 2 | |
| 41 | 001221264 | BOLT 12X120 T | 6 | |
| 42 | 030212300 | WASHER, LOCK M12 | 8 | |
| 43 | 031112230 | WASHER, FLAT M12 | 8 | |
| 45 | 460212740 | BELT COVER (LOWER) | 1 | |
| 46 | 001520635 | SOCKET HEAD BOLT 6X35 T | 5 | |
| 47# | 952406170 | SHIM 70-80-0.1T | 1 | |
| 48# | 952406180 | SHIM 70-80-0.2T | 1 | |

MVH-120GH — CONTROL ASSY. (OLD VERSION)

CONTROL ASSY. (SERIAL NO. L3080 AND BELOW)



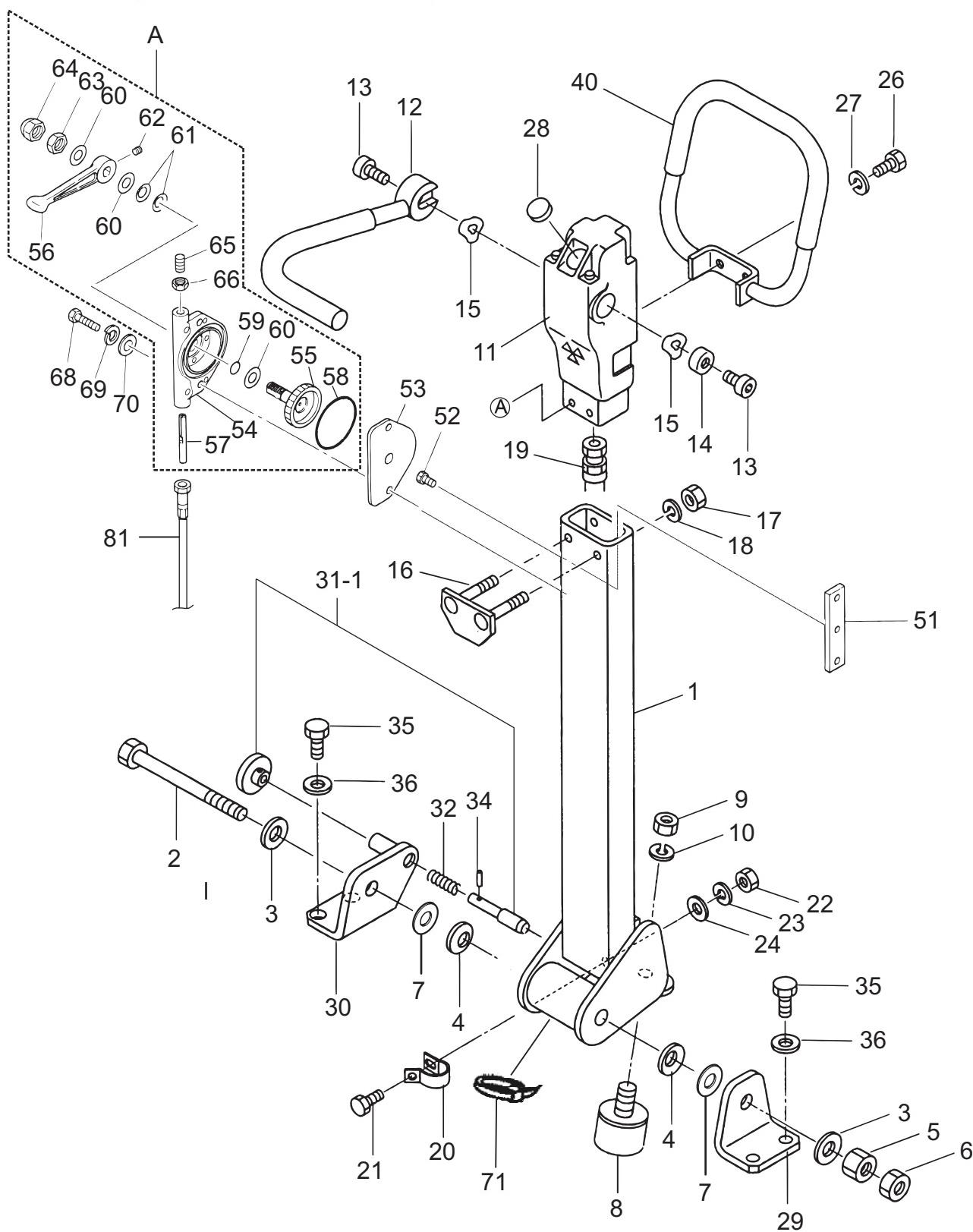
MVH-120GH — CONTROL ASSY. (OLD VERSION)

CONTROL ASSY. (SERIAL NO. L3080 AND BELOW)

| <u>NO</u> | <u>PART NO</u> | <u>PART NAME</u> | <u>QTY.</u> | <u>REMARKS</u> |
|-----------|----------------|-------------------------------|-------------|--------------------|
| 1 | 458115180 | HANDLE | 1 | |
| 2 | 001221668 | BOLT 16X140 T | 1 | |
| 3 | 458450660 | WASHER 16. 4-35-0.6 | 2 | |
| 4 | 032116280 | CONICAL SPRING WASHER M16 | 2 | |
| 5 | 020316130 | NUT M16 | 2 | |
| 7 | 0401450160 | WASHER, FLAT M16 | 2 | REPLACES 031116260 |
| 8 | 939010010 | SHOCK ABSORBER, STOPPER 45 | 1 | |
| 9 | 020310080 | NUT M10 | 1 | |
| 10 | 030210250 | WASHER, LOCK M10 | 1 | |
| 11 | 458338000 | PUMP ASSY. | 1 | |
| 12 | 458337430 | TRAVEL LEVER | 1 | |
| 13 | 014208030 | SOCKET HEAD BOLT 8X20 T | 2 | REPLACES 001520820 |
| 14 | 458451420 | COLLAR | 1 | |
| 15 | 033910030 | WAVE WASHER 15. 5X20X0.3 | 4 | |
| 16 | 458337480 | PUMP HOLDER | 1 | |
| 17 | 022710809 | NYLON NUT M8 | 2 | |
| 18 | 030208200 | WASHER, LOCK M8 | 2 | |
| 19 | 458451350 | OIL HOSE 870L | 1 | |
| 20 | 954404230 | CLAMP SA120-18 | 1 | |
| 21 | 011206020 | BOLT 6X20 T | 1 | REPLACES 001220620 |
| 22 | 020106050 | NUT M6 | 1 | REPLACES 020306050 |
| 23 | 030206150 | WASHER, LOCK M6 | 1 | |
| 24 | 952404470 | WASHER, FLAT M6 | 1 | REPLACES 031106100 |
| 25 | 458214400 | HANDLE GRIP | 1 | |
| 26 | 014208020 | BOLT 8X20 T | 2 | REPLACES 001220820 |
| 27 | 030208200 | WASHER, LOCK M8 | 2 | |
| 28 | 458451630 | BREATHER CAP | 1 | |
| 30 | 9534-06280 | GROMMET | 1 | |
| 32 | 506010070 | CLAMP | 1 | |
| 33 | 459338470 | THROTTLE HOLDER | 1 | |
| 34 | 956100035 | THROTTLE WIRE 120 X 1360 | 1 | |
| 35 | 956200050 | THROTTLE LEVER ASSY | 1 | |
| 36 | 020305040 | NUT M5 | 1 | |
| 37 | 022110504 | CAP NUT M5 | 1 | |
| 38 | 371448300 | CLIP | 1 | |

MVH-120GH — CONTROL ASSY. (NEW VERSION)

CONTROL ASSY. (SERIAL NO. L3081 AND ABOVE)



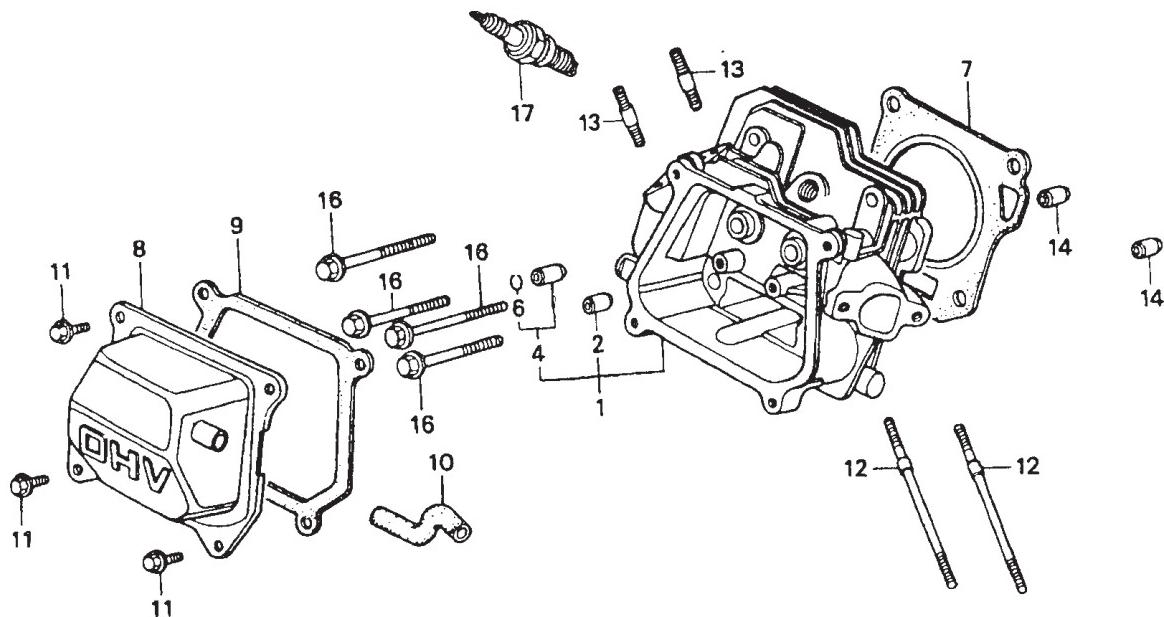
MVH-120GH — CONTROL ASSY. (NEW VERSION)

CONTROL ASSY. (SERIAL NO. L3081 AND ABOVE)

| <u>NO</u> | <u>PART NO</u> | <u>PART NAME</u> | <u>QTY.</u> | <u>REMARKS</u> |
|-----------|----------------|---------------------------|-------------|---------------------|
| A | 362910060 | THROTTLE LEVER ASSY | 1 | INCLUDES ITEMS W/ # |
| 1 | 459115451 | HANDLE | 1 | |
| 2 | 001221669 | BOLT 16X145 T | 1 | |
| 3 | 031116260 | WASHER, FLAT M16 | 2 | |
| 4 | 032216350 | CONICAL SPRING WASHER M16 | 2 | |
| 5 | 020316130 | NUT M16 | 1 | |
| 6 | 020416100 | NUT M16, H=10 | 1 | |
| 7 | 458450660 | WASHER 16.4-35-0.6/MVH120 | 2 | |
| 8 | 939010010 | SHOCK ABSORBER, STOPPER45 | 1 | |
| 9 | 020310080 | NUT M10 | 1 | |
| 10 | 030210250 | WASHER, LOCK M10 | 1 | |
| 11 | 458338001 | PUMP ASSY | 1 | |
| 12 | 458337430 | TRAVEL LEVER | 1 | |
| 13 | 001520820 | SOCKET HEAD BOLT 8X20 T | 2 | |
| 14 | 458451420 | COLLAR | 1 | |
| 15 | 033910030 | WAVE WASHER 15.5X20X0.3 | 4 | |
| 16 | 458337480 | PUMP HOLDER | 1 | |
| 17 | 022710809 | NYLON NUT M8 | 2 | |
| 18 | 030208200 | WASHER, LOCK M8 | 2 | |
| 19 | 458451350 | OIL HOSE 870L | 1 | |
| 20 | 954404230 | CLAMP SA120-18 | 1 | |
| 21 | 001220625 | BOLT 6X25 T | 1 | |
| 22 | 020306050 | NUT M6 | 1 | |
| 23 | 030206150 | WASHER, LOCK M6 | 1 | |
| 24 | 031106100 | WASHER, FLAT M6 | 1 | |
| 26 | 001220820 | BOLT 8X20 T | 2 | |
| 27 | 030208200 | WASHER, LOCK M8 | 2 | |
| 28 | 458451630 | BREATHER CAP | 1 | |
| 29 | 459338030 | HANDLE BRACKET(L) | 1 | |
| 30 | 459338041 | HANDLE BRACKET(R) | 1 | |
| 31-1 | 458910030 | STOPPER & GRIP SET | 1 | |
| 32 | 458450880 | SPRING 1.2-10-29 | 1 | |
| 34 | 025402516 | SPRING PIN 2.5X16 | 1 | |
| 35 | 001221230 | BOLT 12X30 T | 4 | |
| 36 | 030212300 | WASHER, LOCK M12 | 4 | |
| 40 | 458214400 | HANDLE GRIP (EXP) | 1 | |
| 51 | 463455960 | THROTTLE NUT | 1 | |
| 52 | 001520510 | SOCKET HEAD BOLT 5X10 T | 1 | |
| 53 | 463455950 | SPACER, THROTTLE | 1 | |
| 54# | 362341550 | THROTTLE BODY | 1 | |
| 55# | 362910090 | THROTTLE, GEAR CP, W/BOLT | 1 | |
| 56# | 362455630 | THROTTLE LEVER | 1 | |
| 57# | 362455620 | SLIDER | 1 | |
| 58# | 050100450 | O-RING G-45 | 1 | |
| 59# | 050200100 | O-RING P-10 | 1 | |
| 60# | 031110160 | WASHER, FLAT M10 | 3 | |
| 61# | 032110180 | CONICAL SPRING WASHER M10 | 2 | |
| 62# | 096206006 | SOCKET HEAD SCREW 6X6 | 1 | |
| 63# | 020410060 | NUT M10, H=6 | 1 | |
| 64# | 022131008 | CAP NUT M10 | 1 | |
| 65# | 096208020 | SOCKET HEAD SCREW 8X20 | 1 | |
| 66# | 020408050 | NUT M8, H=5 | 1 | |
| 68 | 001220625 | BOLT 6X25 T | 2 | |
| 69 | 030206150 | WASHER, LOCK M6 | 2 | |
| 70 | 031106100 | WASHER, FLAT M6 | 2 | |
| 71 | 511010040 | CLAMP TC-300 | 1 | |
| 81 | 956100041 | THROTTLE WIRE 795-875 | 1 | |

HONDA GX160 ENGINE — CYLINDER HEAD ASSY.

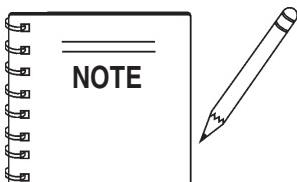
CYLINDER HEAD ASSY.



HONDA GX160 ENGINE — CYLINDER HEAD ASSY.

CYLINDER HEAD ASSY.

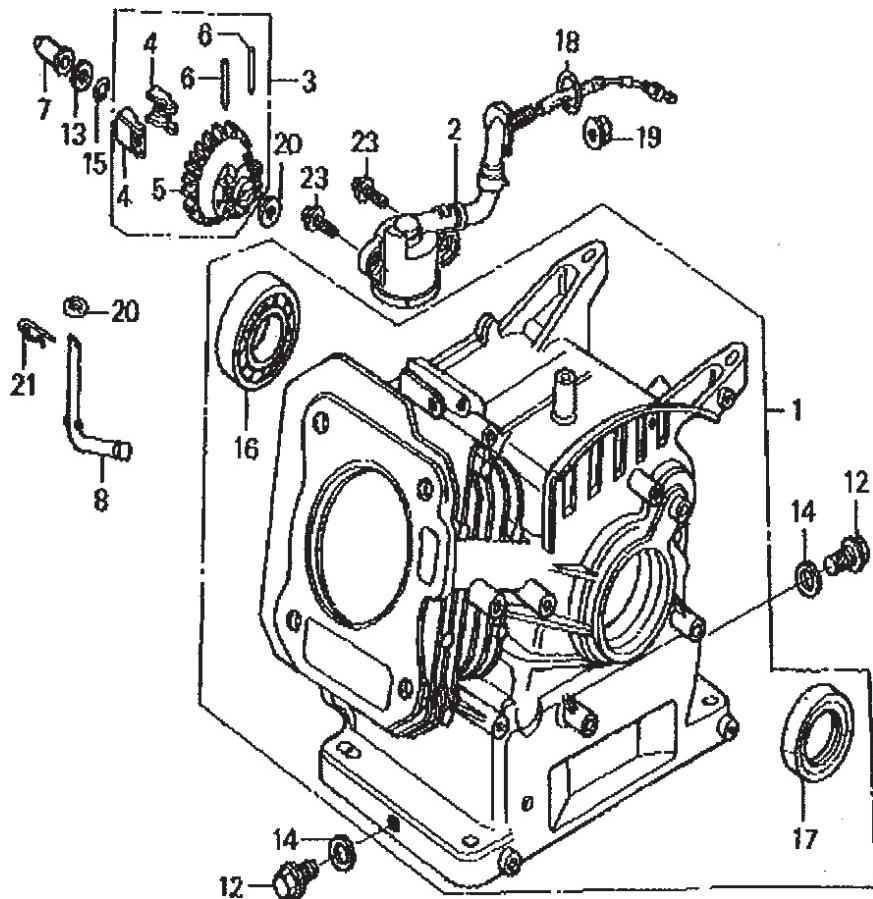
| NO | PART NO | PART NAME | QTY. | REMARKS |
|------|--------------|---------------------------------------|------|-----------------------|
| 1 | 12210ZH8405 | HEAD COMP., CYLINDER | 1 | INCLUDES ITEMS W/# |
| 2# | 12204ZE1306 | GUIDE, IN. VALVE (O.S.), OPTION | 1 | |
| 4# | 12205ZE1315 | GUIDE, EX. VALVE (O.S.), OPTION | 1 | INCLUDES ITEM W/% |
| 6#% | 12216ZE5300 | CLIP, VLAVE GUIDE | 1 | |
| 7 | 12251ZF1800 | GASKET, CYLINDER HEAD | 1 | |
| 8 | 12310ZE1020 | COVER COMP., HEAD | 1 | |
| 9 | 12391ZE1000 | PACKING, HEAD COVER | 1 | |
| 10 | 15721ZH8000 | TUBE, BREATHER | 1 | |
| 11 | 90013883000 | FLANGE BOLT 6X12 | 4 | |
| 12 | 90043ZE1020 | STUD BOLT 6X112 | 2 | |
| 13 | 90047ZE1000 | STUD BOLT 8X32 | 2 | |
| 14 | 9430110160 | DOWEL PIN 10X16 | 2 | |
| 16* | 957230806000 | FLANGE BOLT 8X60 | 4 | |
| 16♦◆ | 957230806000 | FLANGE BOLT 8X60 | 4 | S/N 1144874 AND BELOW |
| 16♦◆ | 957010806000 | FLANGE BOLT 8X60 | 4 | S/N 1144875 AND ABOVE |
| 17 | 9807955846 | SPARK PLUG BPR5ES, NGK | 1 | |
| 17 | 9807955855 | SPARK PLUG W16EPR-U DENSO | 1 | |



- ❖ GX160K1SM12: MODEL MVH120G S/N F-1104 (1998-2004)
- ❖ GX160U1SM12: MODEL MVH120G S/N F-1105 (2005)
- ❖ GX160U1SMX4: MODEL MVH120G S/N P-4378 AND ABOVE (2006)

HONDA GX160 ENGINE — CYLINDER BARREL ASSY.

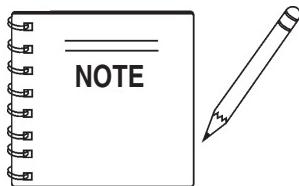
CYLINDER BARREL ASSY.



HONDA GX160 ENGINE — CYLINDER BARREL ASSY.

CYLINDER BARREL ASSY.

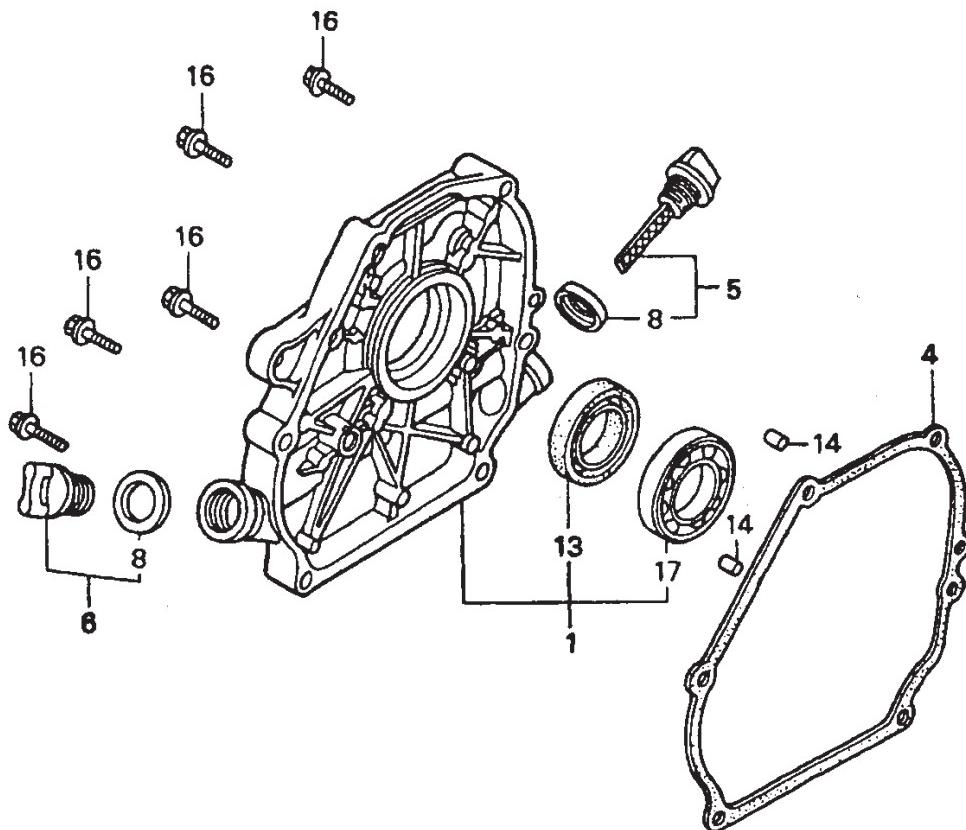
| NO | PART NO | PART NAME | QTY. | REMARKS |
|-----|--------------|--------------------------------------|------|-----------------------|
| 1 | 12000ZH8426 | BARREL ASSY., CYL. (OIL ALERT) | 1 | INCLUDES ITEMS W/# |
| 2* | 15510ZE1033 | SWITCH ASSY., OIL LEVEL | 1 | |
| 2♦♦ | 15510ZE1033 | SWITCH ASSY., OIL LEVEL | 1 | S/N 1145270 AND BELOW |
| 2♦♦ | 15510ZE1033 | SWITCH ASSY., OIL LEVEL | 1 | S/N 1145271 AND ABOVE |
| 3 | 16510ZE1000 | GOVERNOR ASSY. | 1 | INCLUDES ITEMS W/% |
| 4% | 16511ZE1000 | WEIGHT, GOVERNOR | 2 | |
| 5% | 16512ZE1000 | HOLDER, GOVERNOR WEIGHT | 1 | |
| 6% | 16513ZE1000 | PIN, GOVERNOR WEIGHT | 2 | |
| 7 | 16531ZE1000 | SLIDER, GOVERNOR | 1 | |
| 8 | 16541ZE1000 | SHAFT, GOVERNOR ARM | 1 | |
| 12 | 90131ZE1000 | BOLT, DRAIN PLUG | 2 | |
| 13 | 90451ZE1000 | WASHER, THRUST 6MM | 1 | |
| 14 | 90601ZE1000 | WASHER, DRAIN PLUG 10.2 MM | 2 | |
| 15 | 90602ZE1000 | CLIP, GOVERNOR HOLDER | 1 | |
| 16# | 91001ZF1003 | BEARING, RADIAL BALL 6205TMB | 1 | |
| 17# | 91201Z0T801 | OIL, SEAL 25X41X6 | 1 | |
| 18 | 91353671004 | O-RING, 14 MM | 1 | |
| 19 | 9405010000 | NUT, FLANGE 10 MM | 1 | |
| 20 | 9410106800 | WASHER, PLAIN 6 MM | 2 | |
| 21 | 9425108000 | PIN, LOCK 8 MM | 1 | |
| 23 | 957010601200 | BOLT, FLANGE 6X12 | 2 | |



- GX160K1SM12: MODEL MVH120G S/N F-1104 (1998-2004)
- ♦ GX160U1SM12: MODEL MVH120G S/N F-1105 (2005)
- ◆ GX160U1SMX4: MODEL MVH120G S/N P-4378 AND ABOVE (2006)

HONDA GX160 ENGINE — CRANKCASE COVER ASSY.

CRANKCASE COVER ASSY.



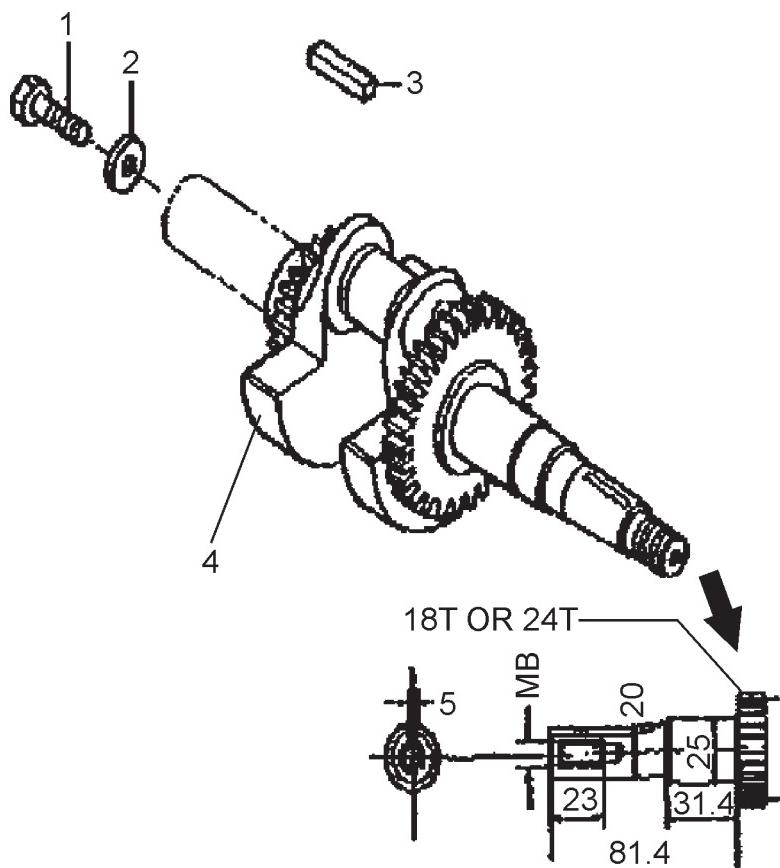
HONDA GX160 ENGINE — CRANKCASE COVER ASSY.

CRANKCASE COVER ASSY.

| <u>NO</u> | <u>PART NO</u> | <u>PART NAME</u> | <u>QTY.</u> | <u>REMARKS</u> |
|-----------|----------------|----------------------------------|-------------|-----------------------|
| 1 | 11300ZZE1634 | COVER ASSY. CRANKCASE | 1 | INCLUDES ITEMS W/% |
| 4 | 11381ZH8801 | GASKET CRANKCASE | 1 | |
| 5 | 15600ZE1003 | OIL GAUGE/CAP ASSY. (GRAY) | 1 | INCLUDES ITEMS W/# |
| 6 | 15600ZG4003 | OIL PLUG ASSY. | 1 | INCLUDES ITEMS W/+ |
| 8#+ | 15625ZE1003 | PACKING, OIL FILLER CAP | 1 | |
| 13% | 91201Z0T801 | OIL SEAL 25X41X6 | 1 | |
| 14 | 9430108140 | DOWEL PIN 8X14 | 2 | |
| 16 | 957010803200 | FLANGE BOLT 8X32 | 6 | |
| 17% | 961006205010 | BEARING, RADIAL BALL 6205 | 1 | REPLACES 961006205000 |

HONDA GX160 ENGINE — CRANKSHAFT ASSY.

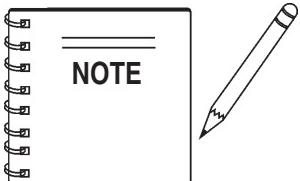
CRANKSHAFT ASSY.



HONDA GX160 ENGINE — CRANKSHAFT ASSY.

CRANKSHAFT ASSY.

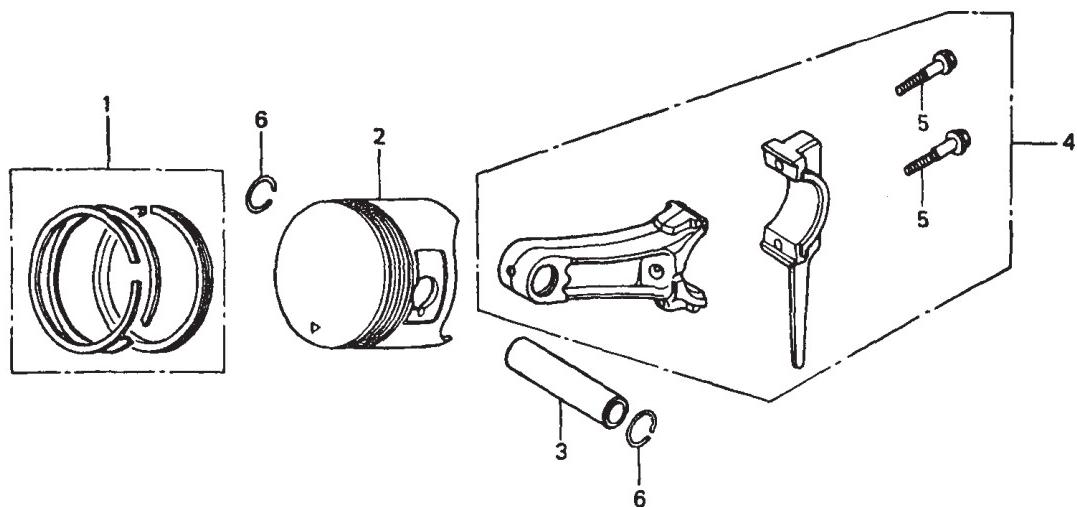
| <u>NO</u> | <u>PART NO</u> | <u>PART NAME</u> | <u>QTY.</u> | <u>REMARKS</u> |
|-----------|----------------|---------------------|-------------|----------------|
| 1♦ | 92101080250A | BOLT | 1 | |
| 2♦ | 90473842000 | WASHER 8 MM | 1 | |
| 3 | 90741883810 | KEY 5X5X33 (YELLOW) | 1 | |
| 4 | 13310ZE1000 | CRANKSHAFT COMP. | 1 | |



- ☒ GX160K1SM12: MODEL MVH120G S/N F-1104 (1998-2004)
- ◊ GX160U1SM12: MODEL MVH120G S/N F-1105 (2005)
- ◆ GX160U1SMX4: MODEL MVH120G S/N P-4378 AND ABOVE (2006)

HONDA GX160 ENGINE — PISTON ASSY.

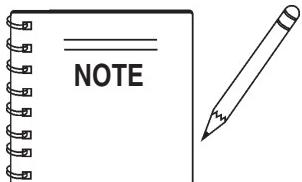
PISTON ASSY.



HONDA GX160 ENGINE — PISTON ASSY.

PISTON ASSY.

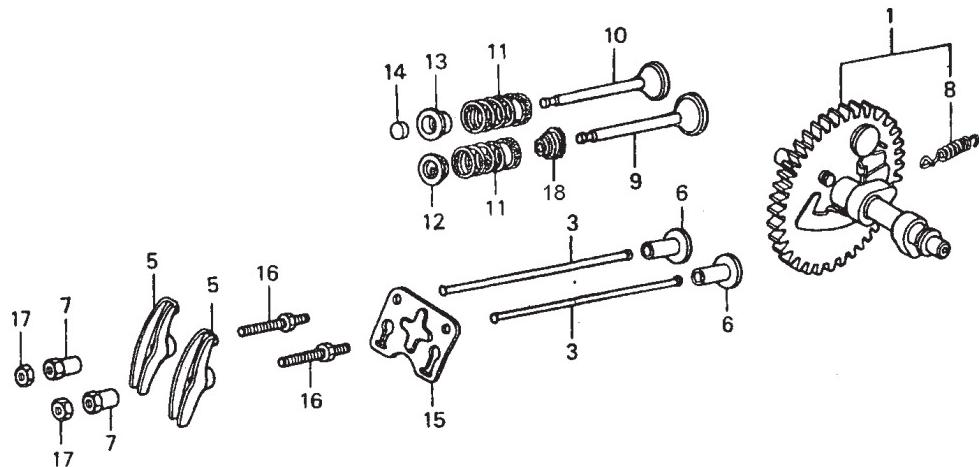
| <u>NO</u> | <u>PART NO</u> | <u>PART NAME</u> | <u>QTY.</u> | <u>REMARKS</u> |
|-----------|----------------|-------------------------------|-------------|--------------------------|
| 1x | 13010ZL0003 | RING SET, PISTON (STD) | 1 | |
| 1◊♦ | 13010ZL0003 | RING SET, PISTON (STD) | 1 | S/N 1120413 AND BELOW |
| 1◊♦ | 13010Z4K004 | RING SET, PISTON (STD) | 1 | S/N 1120414 AND ABOVE |
| 1x | 13011ZL0003 | RING SET, PISTON (0.25) | 1 | |
| 1◊♦ | 13011Z4K004 | RING SET, PISTON (0.25) | 1 | S/N 1120413 AND BELOW |
| 1◊♦ | 13011ZL0003 | RING SET, PISTON (0.25) | 1 | S/N 1120414 AND ABOVE |
| 1x | 13012ZH0003 | RING SET, PISTON (0.50) | 1 | |
| 1◊♦ | 13012ZL0003 | RING SET, PISTON (0.50) | 1 | S/N 1120413 AND BELOW |
| 1◊♦ | 13012Z4K004 | RING SET, PISTON (0.50) | 1 | S/N 1120414 AND ABOVE |
| 1x | 13013ZH0003 | RING SET, PISTON (0.75) | 1 | |
| 1◊♦ | 13013ZL0003 | RING SET, PISTON (0.75) | 1 | S/N 1120413 AND BELOW |
| 1◊♦ | 13013Z4K004 | RING SET, PISTON (0.75) | 1 | S/N 1120414 AND ABOVE |
| 2x | 13101ZH8010 | PISTON (STD) | 1 | |
| 2◊♦ | 13101ZH8010 | PISTON (STD) | 1 | S/N 1120413 AND BELOW |
| 2◊♦ | 13101ZH8020 | PISTON (STD) | 1 | S/N 1120414 AND ABOVE |
| 2x | 13102ZH8010 | PISTON (0.25) | 1 | |
| 2◊♦ | 13102ZH8010 | PISTON (0.25) | 1 | S/N 1120413 AND BELOW |
| 2◊♦ | 13102ZH8020 | PISTON (0.25) | 1 | S/N 1120414 AND ABOVE |
| 2x | 13103ZH8010 | PISTON (0.50) | 1 | |
| 2◊♦ | 13103ZH8010 | PISTON (0.50) | 1 | S/N 1120413 AND BELOW |
| 2◊♦ | 13103ZH8020 | PISTON (0.50) | 1 | S/N 1120414 AND ABOVE |
| 2x | 13104ZH8010 | PISTON (0.75) | 1 | |
| 2◊♦ | 13104ZH8010 | PISTON (0.75) | 1 | S/N 1120413 AND BELOW |
| 2◊♦ | 13104ZH8020 | PISTON (0.75) | 1 | S/N 1120414 AND ABOVE |
| 3 | 13111ZE1000 | PISTON PIN | 1 | |
| 4 | 13200ZE1010 | ROD ASSY., CONNECTING | 1 | INCLUDES ITEM W/# |
| 4x | 132A0ZE1000 | ROD ASSY., CONNECTING | 1 | 0.25 UNDER SIZE (OPTION) |
| 5# | 90001ZE1000 | BOLT, CONNECTING ROD | 2 | |
| 6 | 90551ZE1000 | CLIP, PISTON PIN 18 MM | 2 | |



- ☒ GX160K1SM12: MODEL MVH120G S/N F-1104 (1998-2004)
- ◊ GX160U1SM12: MODEL MVH120G S/N F-1105 (2005)
- ♦ GX160U1SMX4: MODEL MVH120G S/N P-4378 AND ABOVE (2006)

HONDA GX160 ENGINE — CAMSHAFT ASSY.

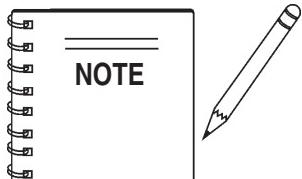
CAMSHAFT ASSY.



HONDA GX160 ENGINE — CAMSHAFT ASSY.

CAMSHAFT ASSY.

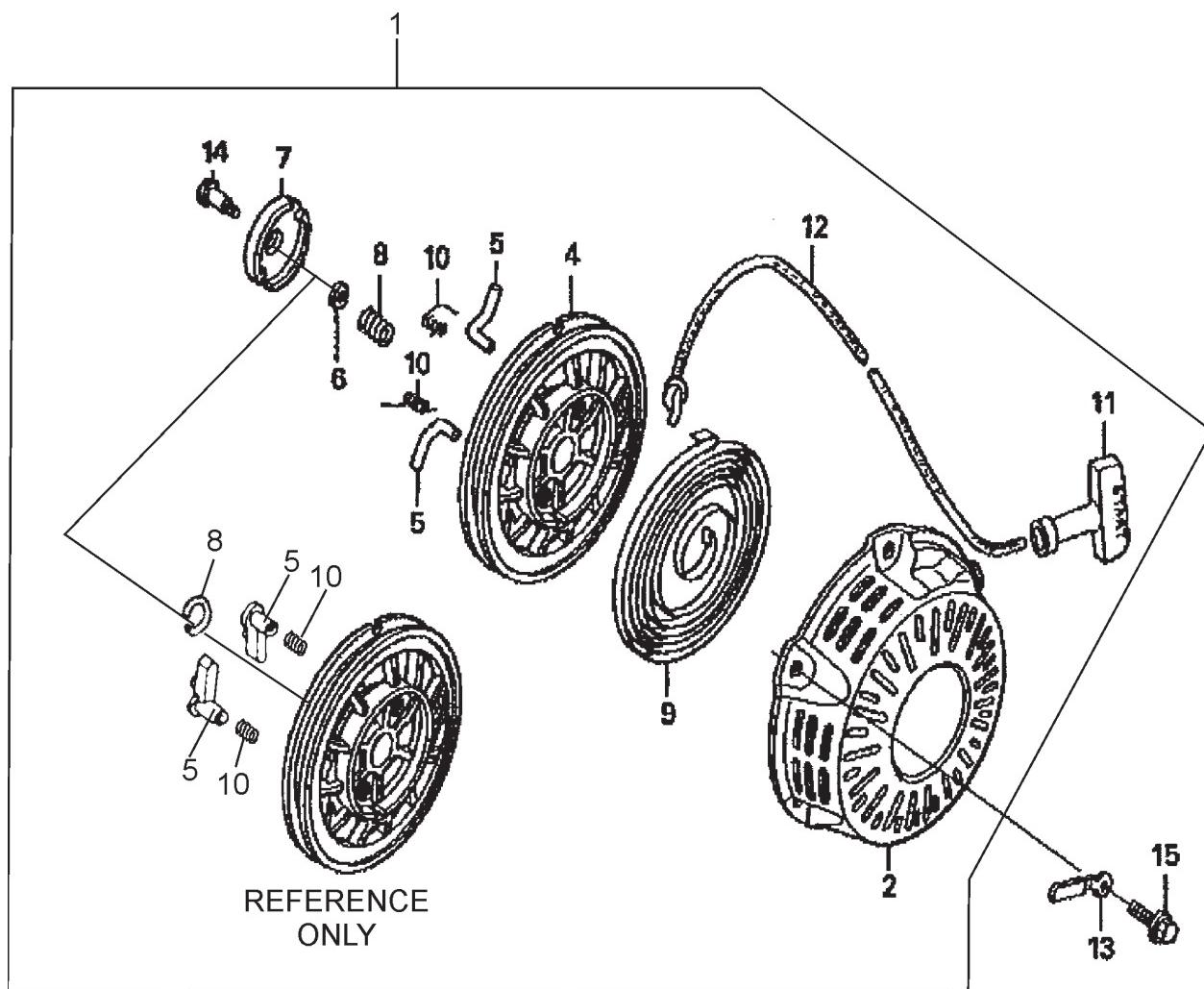
| <u>NO</u> | <u>PART NO</u> | <u>PART NAME</u> | <u>QTY.</u> | <u>REMARKS</u> |
|-----------|----------------|-------------------------|-------------|-------------------|
| 1 | 14100ZE1812 | CAMSHAFT ASSY..... | 1 | INCLUDES ITEM W/# |
| 3 | 14410ZE1010 | ROD, PUSH | 2 | |
| 5 | 14431ZE1000 | ARM, VALVE ROCKER | 2 | |
| 6 | 14441ZE1010 | LIFTER, VALVE | 2 | |
| 7 | 14451ZE1013 | PIVOT, ROCKER ARM | 2 | |
| 8# | 14568ZE1000 | SPRING, WEIGHT RETURN | 1 | |
| 9 | 14711ZF1000 | VALVE, INLET | 1 | |
| 10 | 14721ZF1000 | VALVE, EXHAUST | 2 | |
| 11 | 14751ZF1000 | SPRING, VALVE | 1 | |
| 12 | 14771ZE1000 | RETAINER, INTAKET VALVE | 1 | |
| 13 | 14773ZE1000 | RETAINER, EXHAUST VALVE | 1 | |
| 14 | 14781ZE1000 | ROTATOR, VALVE | 1 | |
| 15 | 14791ZE1010 | PLATE, PUSH ROD GUIDE | 1 | |
| 16 | 90012ZE0010 | BOLT, PIVOT 8 MM | 2 | |
| 17 | 90206ZE1000 | NUT, PIVOT ADJUSTING | 2 | |
| 18✉ | 14781ZE1000 | SEAL, VALVE STEM | 1 | |
| 18♦♦ | 12209ZH8003 | SEAL, VALVE STEM | 1 | |



- ✉ GX160K1SM12: MODEL MVH120G S/N F-1104 (1998-2004)
- ♦ GX160U1SM12: MODEL MVH120G S/N F-1105 (2005)
- ♦ GX160U1SMX4: MODEL MVH120G S/N P-4378 AND ABOVE (2006)

HONDA GX160 ENGINE — RECOIL STARTER ASSY.

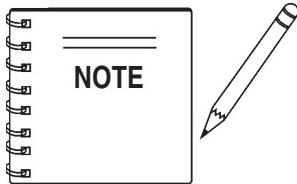
RECOIL STARTER ASSY.



HONDA GX160 ENGINE — RECOIL STARTER ASSY.

RECOIL STARTER ASSY.

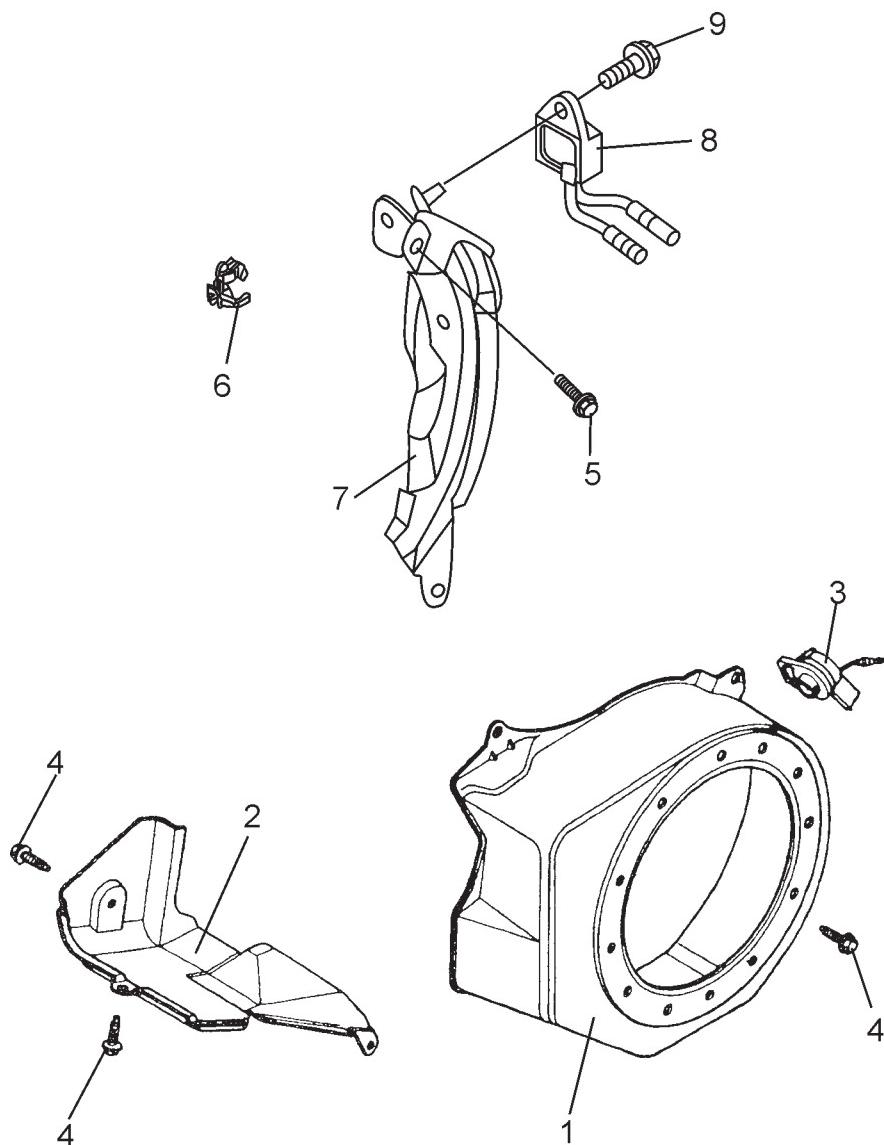
| <u>NO</u> | <u>PART NO</u> | <u>PART NAME</u> | <u>QTY.</u> | <u>REMARKS</u> |
|-----------|----------------|-------------------------------------|-------------|---|
| 1x | 28400ZH8013ZB | STARTER ASSY., RECOIL (BLACK) | 1 | INCLUDES ITEMS W/# S/N 8805657 AND BELOW |
| 1x | 28400ZH8023ZB | STARTER ASSY., RECOIL (BLACK) | 1 | INCLUDES ITEMS W/% S/N 8805658 AND ABOVE |
| 1♦◆ | 28400ZH8023ZB | STARTER ASSY., RECOIL (BLACK) | 1 | INCLUDES ITEMS W/+ |
| 2#%+ | 28410ZH8003ZB | CASE COMP., RECOIL STARTER NH1 | 1 | |
| 4#% | 28421ZH8013 | REEL, RECOIL STARTER | 1 | S/N 8805657 AND BELOW |
| 4#% | 28421ZH8801 | REEL, RECOIL STARTER | 1 | S/N 8805658 AND ABOVE |
| 4♦◆+ | 28421ZH8801 | REEL, RECOIL STARTER | 1 | |
| 5#% | 28422ZH8013 | RACHET STARTER | 2 | S/N 8805657 AND BELOW |
| 5#% | 28422ZH8801 | RACHET STARTER | 2 | S/N 8805658 AND ABOVE |
| 5♦◆+ | 28422ZH8801 | RACHET STARTER | 2 | |
| 6#% | 28431ZH8801 | PLATE, FRICTION | 1 | S/N 8805658 AND ABOVE |
| 6♦◆+ | 28431ZH8801 | PLATE, FRICTION | 1 | |
| 7#% | 28433ZH8003 | GUIDE, RATCHET | 1 | S/N 8805657 AND BELOW |
| 7#% | 28433ZH8801 | GUIDE, RATCHET | 1 | S/N 8805658 AND ABOVE |
| 7♦◆+ | 28433ZH8801 | GUIDE, RATCHET | 1 | |
| 8#% | 28441ZH8003 | SPRING, FRICTION | 1 | S/N 8805657 AND BELOW |
| 8#% | 28441ZH8801 | SPRING, FRICTION | 1 | S/N 8805658 AND ABOVE |
| 8♦◆+ | 28441ZH8801 | SPRING, FRICTION | 1 | |
| 9#%+ | 28442ZH8003 | SPRING, RECOIL STARTER | 1 | |
| 10#% | 28443ZH8003 | SPRING, RETURN | 2 | S/N 8805657 AND BELOW |
| 10#% | 28443ZH8801 | SPRING, RETURN | 2 | S/N 8805658 AND ABOVE |
| 10♦◆+ | 28443ZH8801 | SPRING, RETURN | 2 | |
| 11#%+ | 28461ZH8003 | GRIP, STARTER | 1 | |
| 12#%+ | 28462ZH8003 | ROPE, RECOIL STARTER | 1 | |
| 13#◆ | 32901MA1000 | CLIP, SUB CORD | 1 | |
| 14#% | 90003ZH8003 | SCREW, SET | 1 | S/N 8805657 AND BELOW |
| 14#% | 90003ZH8801 | SCREW, SET | 1 | S/N 8805658 AND ABOVE |
| 14♦◆+ | 90003ZH8801 | SCREW, SET | 1 | |
| 15 | 90008ZE2003 | BOLT, FLANGE, 6X10 | 3 | |



- ✖ GX160K1SM12: MODEL MVH120G S/N F-1104 (1998-2004)
- ◆ GX160U1SM12: MODEL MVH120G S/N F-1105 (2005)
- ◆ GX160U1SMX4: MODEL MVH120G S/N P-4378 AND ABOVE (2006)

HONDA GX160 ENGINE — FAN COVER ASSY.

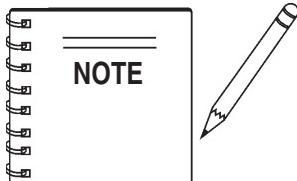
FAN COVER ASSY.



HONDA GX160 ENGINE — FAN COVER ASSY.

FAN COVER ASSY.

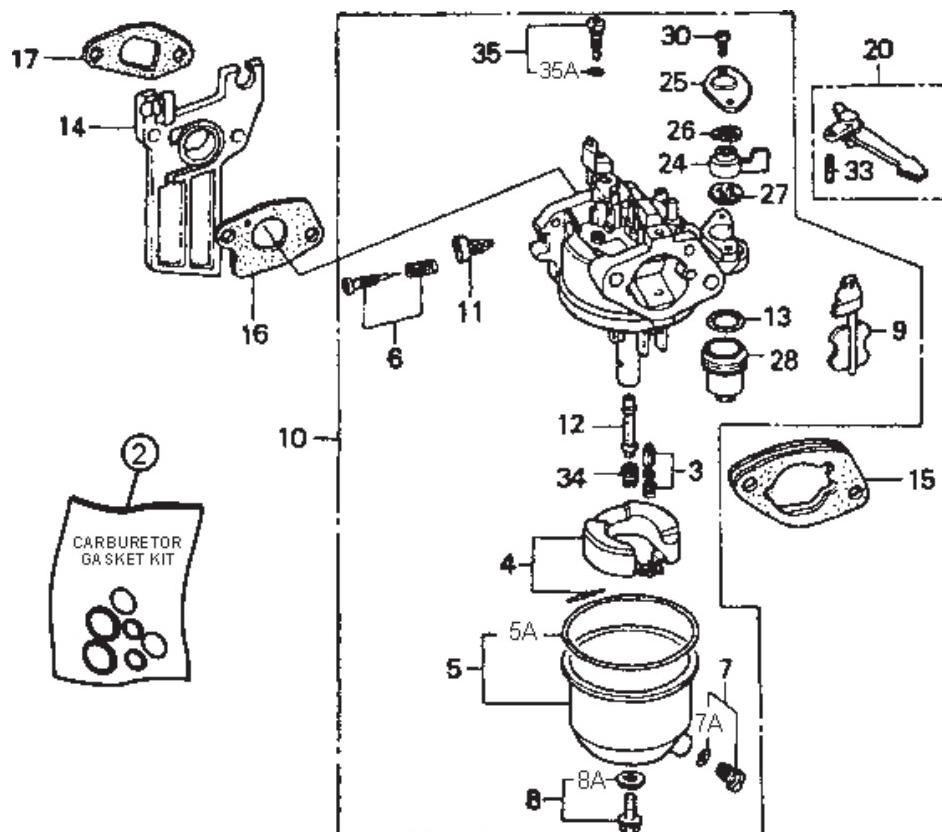
| <u>NO</u> | <u>PART NO</u> | <u>PART NAME</u> | <u>QTY.</u> | <u>REMARKS</u> |
|-----------|----------------|--------------------------------|-------------|-----------------------|
| 1☒ | 19610ZE1000ZC | COVER COMP., FAN NH1 | 1 | |
| 1◊♦ | 19610ZE1000ZC | COVER COMP., FAN NH1 | 1 | S/N 1120542 AND BELOW |
| 1◊♦ | 19610ZE1010ZC | COVER COMP., FAN NH1 | 1 | S/N 1120543 AND ABOVE |
| 2 | 19630ZH8000 | SHROUD COMP. | 1 | |
| 3☒ | 36100ZH7003 | SWITCH ASSY. ENGINE STOP | 1 | |
| 3◊♦ | 36100ZF6P81 | SWITCH ASSY. ENGINE STOP | 1 | S/N 1145482 AND BELOW |
| 3◊♦ | 36100ZF6P82 | SWITCH ASSY. ENGINE STOP | 1 | S/N 1145483 AND ABOVE |
| 4 | 90013883000 | BOLT, FLANGE 6X12 | 6 | |
| 5 | 90022888010 | BOLT, FLANGE 6X20 | 1 | |
| 6 | 90601ZH7013 | CLIP, HARNESS | 1 | |
| 7 | 19611ZH8810 | PLATE COMP., SIDE OIL ALERT | 1 | |
| 8☒ | 34150ZH7003 | ALERT UNIT, OIL | 1 | |
| 8◊♦ | 34150ZH7003 | ALERT UNIT, OIL | 1 | S/N 1145270 AND BELOW |
| 8◊♦ | 34150ZH7013 | ALERT UNIT, OIL | 1 | S/N 1145271 AND ABOVE |
| 9 | 957010600800 | BOLT, FLANGE 6X8 | 1 | |



- ☒ GX160K1SM12: MODEL MVH120G S/N F-1104 (1998-2004)
- ◊ GX160U1SM12: MODEL MVH120G S/N F-1105 (2005)
- ♦ GX160U1SMX4: MODEL MVH120G S/N P-4378 AND ABOVE (2006)

HONDA GX160 ENGINE — CARBURETOR ASSY.

CARBURETOR ASSY.



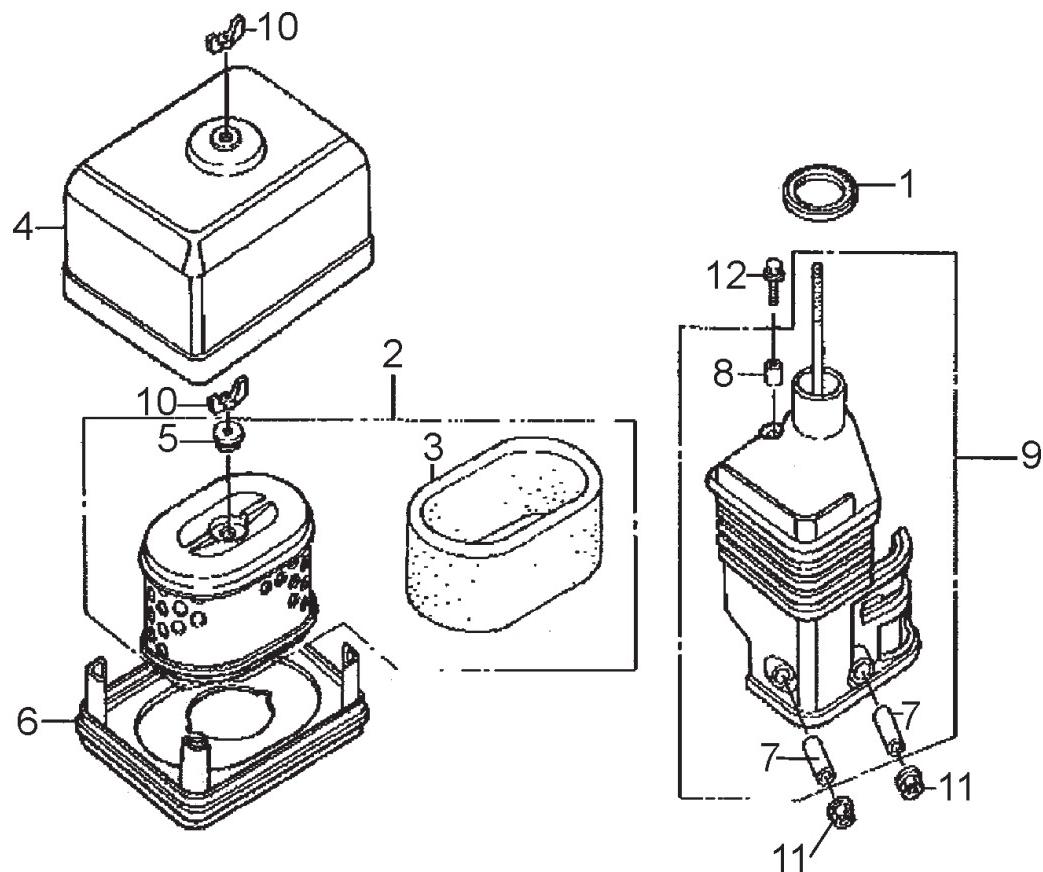
HONDA GX160 ENGINE — CARBURETOR ASSY.

CARBURETOR ASSY.

| <u>NO</u> | <u>PART NO</u> | <u>PART NAME</u> | <u>QTY.</u> | <u>REMARKS</u> |
|-----------|----------------|----------------------------------|-------------|-----------------------|
| 2 | 16010ZE1812 | GASKET SET | 1 | INCLUDES ITEMS W/ & |
| 3# | 16011ZE0005 | FLOAT VALVE SET | 1 | |
| 4# | 16013ZE0005 | FLOAT SET | 1 | |
| 5# | 16015ZE0831 | FLOAT CHAMBER SET | 1 | INCLUDES ITEMS W/* |
| 5A&* | | GASKET, FLOAT CHAMBER SET | 1 | NOT SOLD SEPARATELY |
| 6# | 16016ZH7W01 | SCREW SET, PILOT | 1 | |
| 7# | 16024ZE1811 | SCREW SET, DRAIN | 1 | INCLUDES ITEMS W/\$ |
| 7A&\$ | | GASKET, DRAIN SCREW SET | 1 | NOT SOLD SEPARATELY |
| 8# | 16028ZE0005 | SCREW SET | 1 | INCLUDES ITEMS W/+ |
| 8A&+ | | GASKET, SCREW SET | 1 | NOT SOLD SEPARATELY |
| 9# | 16044ZE0005 | CHOKE SET | 1 | |
| 10 | 16100ZH8W51 | CARBURETOR ASSY. | 1 | INCLUDES ITEMS W/# |
| 11# | 16124ZE0005 | SCREW, THROTTLE STOP | 1 | |
| 12# | 16166ZH8W50 | MAIN NOZZLE | 1 | |
| 13#& | 16955283000 | PACKING, FUEL STRAINER CUP | 1 | REPLACES 16173001004 |
| 14 | 16211ZE1000 | INSULATOR, CARBURETOR | 1 | |
| 15 | 16220ZE1020 | SPACER COMP., CARBURETOR | 1 | |
| 16 | 16221ZH8801 | PACKING, CARBURETOR | 1 | |
| 17 | 16212ZH8800 | PACKING, INSULATOR | 1 | |
| 20 | 16610ZE1000 | LEVER COMP., CHOKE (STD) | 1 | INCLUDES ITEMS W/% |
| 24# | 16953ZE1812 | LEVER, COCK | 1 | |
| 25# | 16954ZE1812 | PLATE, LEVER SETTING | 1 | |
| 26# | 16956ZE1811 | SPRING, COCK LEVER | 1 | |
| 27#& | 16957ZE1812 | PACKING, FUEL COCK | 1 | |
| 28# | 16967ZE0811 | CUP, FUEL STRAINER | 1 | |
| 30# | 93500030060H | SCREW, PAN 3X6 | 2 | REPLACES 93500030061H |
| 33% | 9430520122 | PIN, SPRING 2X12 | 1 | |
| 34 | 99101ZH80650 | MAIN JET #65, OPTION | 1 | |
| 34 | 99101ZH80680 | MAIN JET #68, OPTION | 1 | |
| 34# | 99101ZH80700 | MAIN JET #70, OPTION | 1 | |
| 35# | 99204ZE00350 | PILOT JET SET #35 | 1 | INCLUDES ITEMS W/ > |
| 35A&> | | GASKET, PILOT JET SET #35 | 1 | NOT SOLD SEPARATELY |

HONDA GX160 ENGINE — AIR CLEANER ASSY.

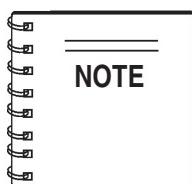
AIR CLEANER ASSY.



HONDA GX160 ENGINE — AIR CLEANER ASSY.

AIR CLEANER ASSY.

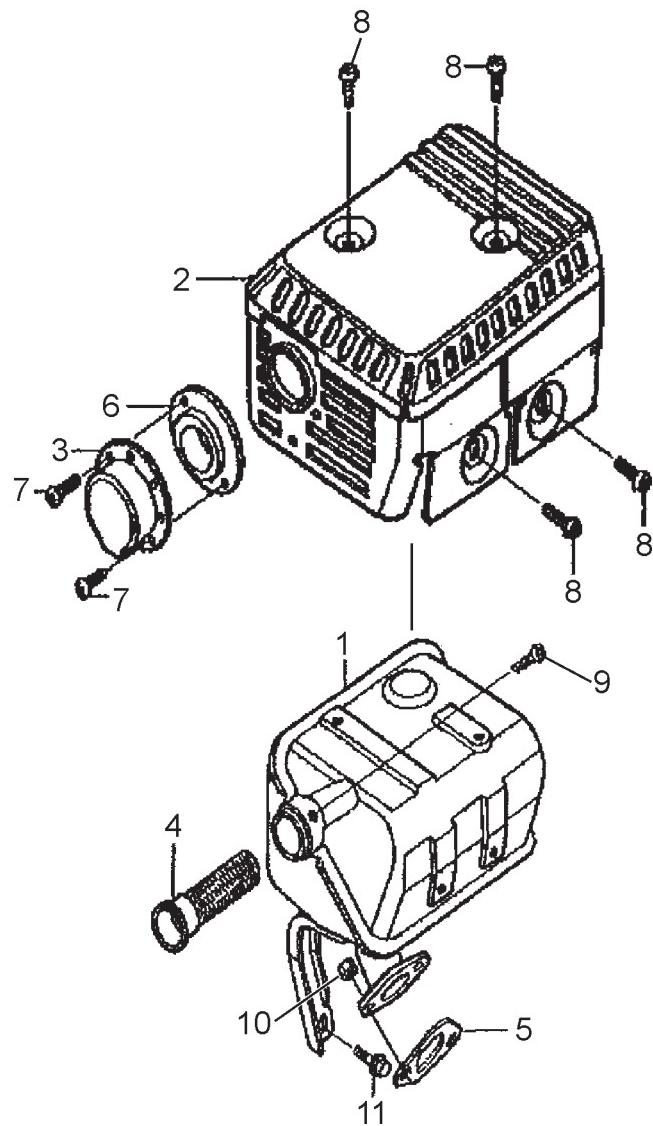
| <u>NO</u> | <u>PART NO</u> | <u>PART NAME</u> | <u>QTY.</u> | <u>REMARKS</u> |
|------------------|----------------|--------------------------|-------------|--|
| 1 | 16271ZE1000 | PACKING, ELBOW | 1 | |
| 2 | 17210ZE1505 | CLEANER ELEMENT | 1 | INCLUDES ITEMS W/# REPLACES 17210ZE1822 |
| 3# | 17218ZE1505 | OUTER ELEMENT | 1 | REPLACES 17218ZE1821 |
| 4 | 17230ZE1820 | COVER, AIR CLEANER | 1 | |
| 5# | 17232891000 | GROMET, AIR CLEANER | 1 | |
| 6 x ♦ | 17235ZE1831 | NOSE, SILENCER | 1 | |
| 7% | 17238ZE7010 | COLLAR, AIR CLEANER | 2 | |
| 8% | 17239ZE1000 | COLLAR (B), AIR CLEANER | 1 | |
| 9 | 17410ZE1020 | ELBOW COMP., AIR CLEANER | .1 | INCLUDES ITEMS W/% |
| 10 | 90325044000 | NUT | 2 | |
| 11 | 9405006000 | NUT, FLANGE 6MM | 2 | |
| 12 | 957010602000 | BOLT, FLANGE 6X20 | 1 | |



- ✖ GX160K1SM12: MODEL MVH120G S/N F-1104 (1998-2004)
- ◊ GX160U1SM12: MODEL MVH120G S/N F-1105 (2005)
- ◆ GX160U1SMX4: MODEL MVH120G S/N P-4378 AND ABOVE (2006)

HONDA GX160 ENGINE — MUFFLER ASSY.

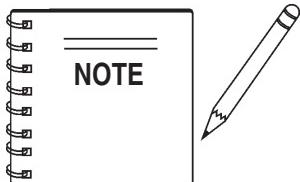
MUFFLER ASSY.



HONDA GX160 ENGINE — MUFFLER ASSY.

MUFFLER ASSY.

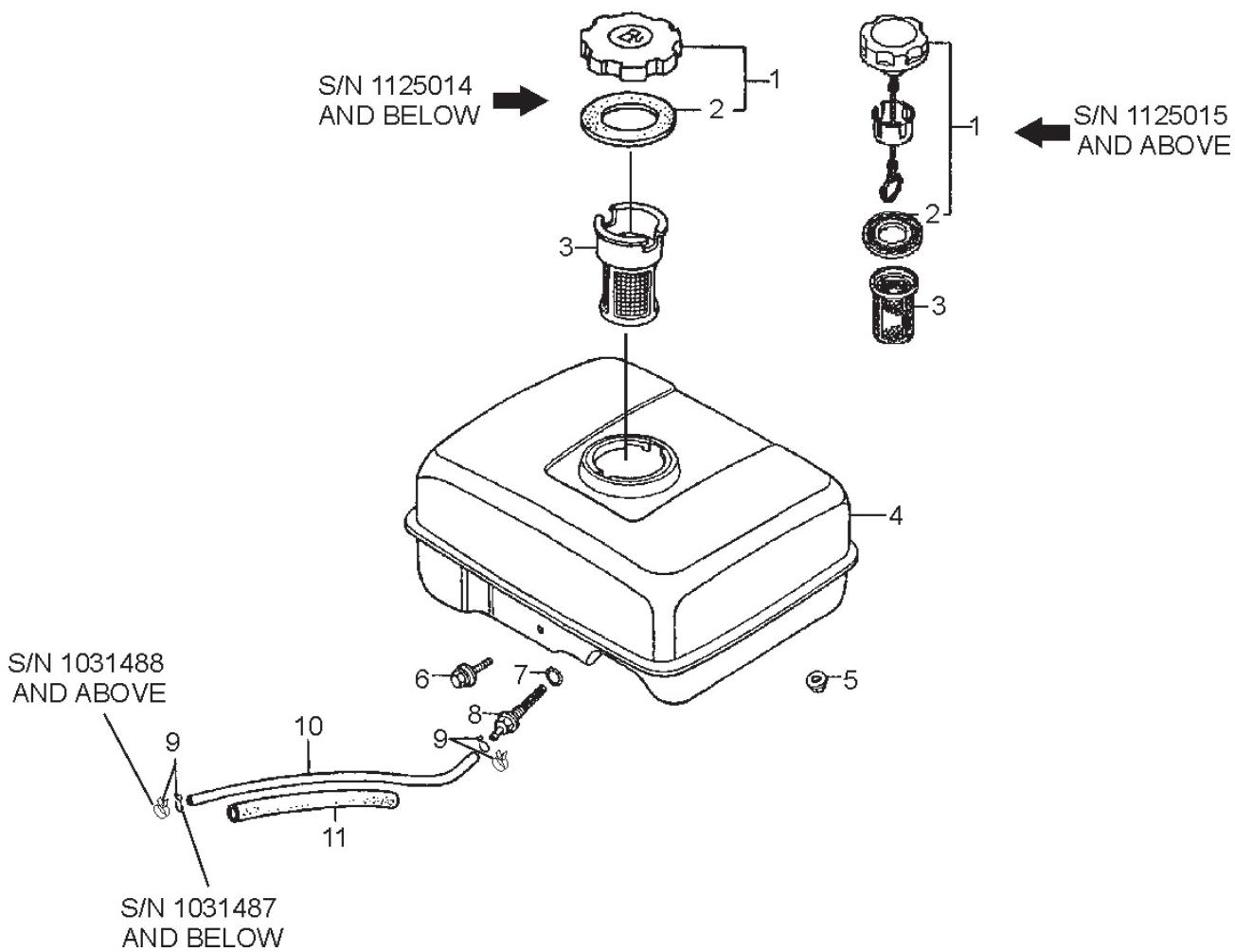
| <u>NO</u> | <u>PART NO</u> | <u>PART NAME</u> | <u>QTY.</u> | <u>REMARKS</u> |
|-----------|----------------|--------------------|-------------|-----------------------|
| 1 | 18310ZH8810 | MUFFLER COMP. | 1 | |
| 2 | 19320ZF1H01 | PROTECTOR, MUFFLER | 1 | |
| 3 | 18340ZE1010 | DEFLECTOR COMP. | 1 | |
| 4 | 18355ZE1000 | ARRESTOR, SPARK | 1 | |
| 5 | 18381ZH8800 | GASKET, MUFFLER | 1 | |
| 6 | 18522ZE1000 | GUIDE, MUFFLER | 1 | |
| 7 | 90002ZG0003 | SCREW, TAPPING 4X8 | 2 | |
| 8 | 90050ZE1000 | SCREW, TAPPING 5X8 | 5 | |
| 9 | 90055ZE1000 | SCREW, TAPPING 4X6 | 1 | |
| 10 | 020108060 | NUT, HEX 8MM | 2 | REPLACES 94001080000S |
| 11♦ | 90016ZE1000 | BOLT, FLANGE 6X13 | 1 | |



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- ◊ GX160U1SM12: MODEL MVH120G S/N F-1105 (2005)
- ◆ GX160U1SMX4: MODEL MVH120G S/N P-4378 AND ABOVE (2006)

HONDA GX160 ENGINE — FUEL TANK ASSY.

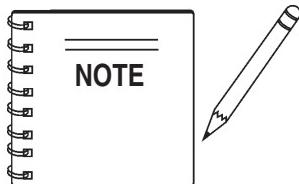
FUEL TANK ASSY.



HONDA GX160 ENGINE — FUEL TANK ASSY.

FUEL TANK ASSY.

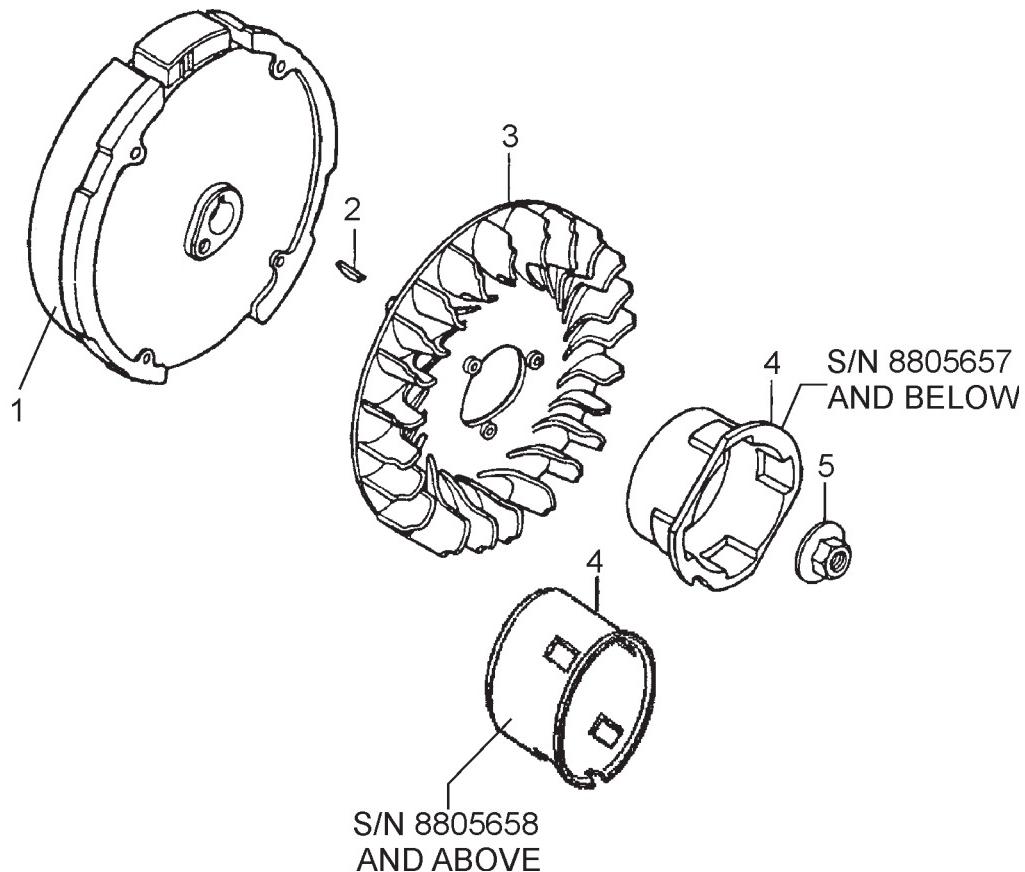
| <u>NO</u> | <u>PART NO</u> | <u>PART NAME</u> | <u>QTY.</u> | <u>REMARKS</u> |
|-----------|----------------|--------------------------------|-------------|-----------------------|
| 1☒ | 17620Z0T305 | CAP COMP., CHROME PLATED..... | 1 | INCLUDES ITEM W/# |
| 1◊♦ | 17620Z0T305 | CAP COMP., CHROME PLATED..... | 1 | S/N 1125014 AND BELOW |
| | | | | INCLUDES ITEM W/+ |
| 1◊♦ | 17620Z4H000 | CAP COMP., CHROME PLATED..... | 1 | S/N 1125015 AND ABOVE |
| | | | | INCLUDES ITEM W/% |
| 2# | 17631Z0T812 | PACKING, FUEL FILLER CAP | 1 | |
| 2◊♦+% | 17631Z0T812 | PACKING, FUEL FILLER CAP | 1 | S/N 1125014 AND BELOW |
| 2◊♦% | 17631Z0T801 | PACKING, FUEL FILLER CAP | 1 | S/N 1125015 AND ABOVE |
| 3☒ | 17672ZE2W01 | FILTER, FUEL | 1 | |
| 3◊♦ | 17672ZE2W01 | FILTER, FUEL | 1 | S/N 1125014 AND BELOW |
| 3◊♦ | 117672Z4H000 | FILTER, FUEL | 1 | S/N 1125015 AND ABOVE |
| 4☒♦ | 17510ZE1020ZF | FUEL TANK COMP. | 1 | |
| 4◊ | 17510ZE1020ZF | FUEL TANK COMP. | 1 | S/N 1137417 AND BELOW |
| 4◊ | 17510ZE1030ZF | FUEL TANK COMP. | 1 | S/N 1137418 AND ABOVE |
| 5 | 9405006000 | FLANGE NUT 6 MM | 2 | |
| 6 | 90004ZH7003 | BOLT, FLANGE 6X29 | 1 | |
| 7 | 91353671003 | O-RING 14 MM | 1 | REPLACES 91353671004 |
| 8 | 16955ZE1000 | JOINT, FUEL TANK | 1 | |
| 9☒ | 9500202080 | CLIP, TUBE | 2 | |
| 9◊♦ | 9500202080 | CLIP, TUBE..... | 2 | S/N 1031487 AND BELOW |
| 9◊♦ | 950024080008 | CLAMP, TUBE | 2 | S/N 1031488 AND ABOVE |
| 10☒ | 950014514040 | TUBE, FUEL 4.5X140 | 1 | |
| 10◊♦ | 90014514040 | TUBE, FUEL 4.5X140 | 1 | S/N 1031487 AND BELOW |
| 10◊♦ | 91424Z4F801 | TUBE, FUEL 4.5X140 | 1 | S/N 1031488 AND ABOVE |
| 11 | 16854ZH8000 | RUBBER, SUPPORT (107 MM) | 1 | |



- ☒ GX160K1SM12: MODEL MVH120G S/N F-1104 (1998-2004)
- ◊ GX160U1SM12: MODEL MVH120G S/N F-1105 (2005)
- ♦ GX160U1SMX4: MODEL MVH120G S/N P-4378 AND ABOVE (2006)

HONDA GX160 ENGINE — FLYWHEEL ASSY.

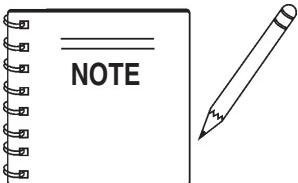
FLYWHEEL ASSY.



HONDA GX160 ENGINE — FLYWHEEL ASSY.

FLYWHEEL ASSY.

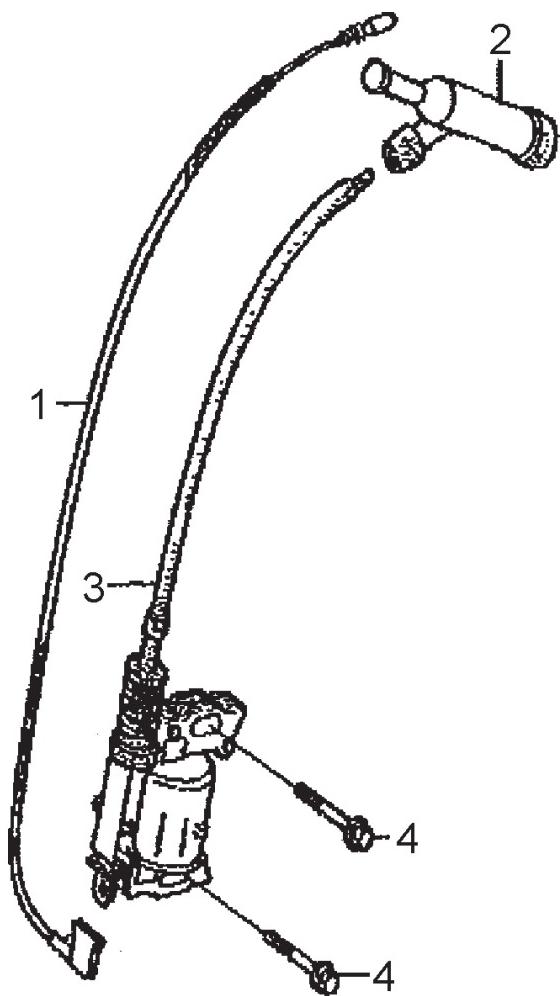
| <u>NO</u> | <u>PART NO</u> | <u>PART NAME</u> | <u>QTY.</u> | <u>REMARKS</u> |
|-----------|----------------|-----------------------|-------------|-----------------------|
| 1 | 31100ZE1010 | FLYWHEEL COMP. | 1 | |
| 2 | 13331357000 | WOODRUFF KEY 25X18 | 1 | |
| 3 | 19511ZE1000 | FAN, COOLING | 1 | |
| 4☒ | 28451ZH8003 | PULLEY, STARTER | 1 | S/N 8805657 AND BELOW |
| 4☒ | 28451ZH8801 | PULLEY, STARTER | 1 | S/N 8805658 AND ABOVE |
| 4♦♦ | 28451ZH8801 | PULLEY, STARTER | 1 | |
| 5 | 90201878003 | SPECIAL NUT 14MM | 1 | |



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- ◆ GX160U1SMX4: MODEL MVH120G S/N P-4378 AND ABOVE (2006)

HONDA GX160 ENGINE—IGNITION COIL ASSY.

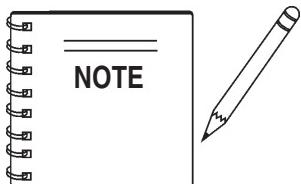
IGNITION COIL ASSY.



HONDA GX160 ENGINE — IGNITION COIL ASSY.

IGNITION COIL ASSY.

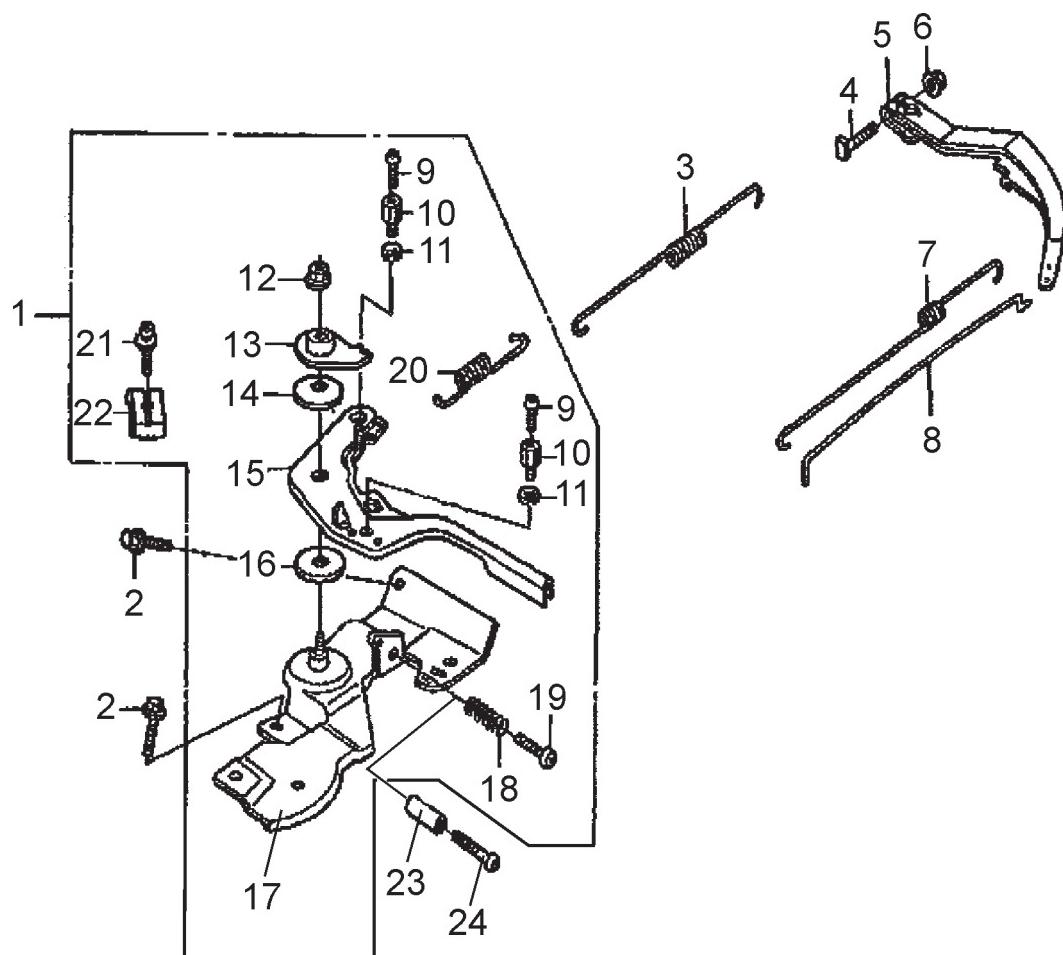
| <u>NO</u> | <u>PART NO</u> | <u>PART NAME</u> | <u>QTY.</u> | <u>REMARKS</u> |
|-----------|----------------|-----------------------------|-------------|-----------------------|
| 1 | 36101ZE1010 | CORD, STOP SWITCH (370 MM) | 1 | |
| 2 | 30600ZE1013 | CAP ASSY., NOISE SUPPRESSOR | 1 | |
| 3* | 30500ZE1043 | COIL ASSY., IGNITION | 1 | S/N 8954625 AND BELOW |
| 3* | 30500ZE1053 | COIL ASSY., IGNITION | 1 | S/N 8954626 AND ABOVE |
| 3♦◆ | 30500ZE1063 | COIL ASSY., IGNITION | 1 | S/N 1141205 AND BELOW |
| 3♦◆ | 30500ZE1073 | COIL ASSY., IGNITION | 1 | S/N 1141206 AND ABOVE |
| 4 | 90121952000 | FLANGE BOLT 6X25 | 2 | |



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- ♦ GX160U1SM12: MODEL MVH120G S/N F-1105 (2005)
- ◆ GX160U1SMX4: MODEL MVH120G S/N P-4378 AND ABOVE (2006)

HONDA GX160 ENGINE—CONTROL ASSY.

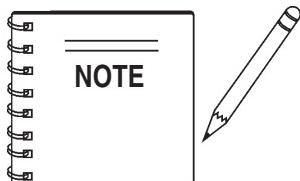
CONTROL ASSY.



HONDA GX160 ENGINE — CONTROL ASSY.

CONTROL ASSY.

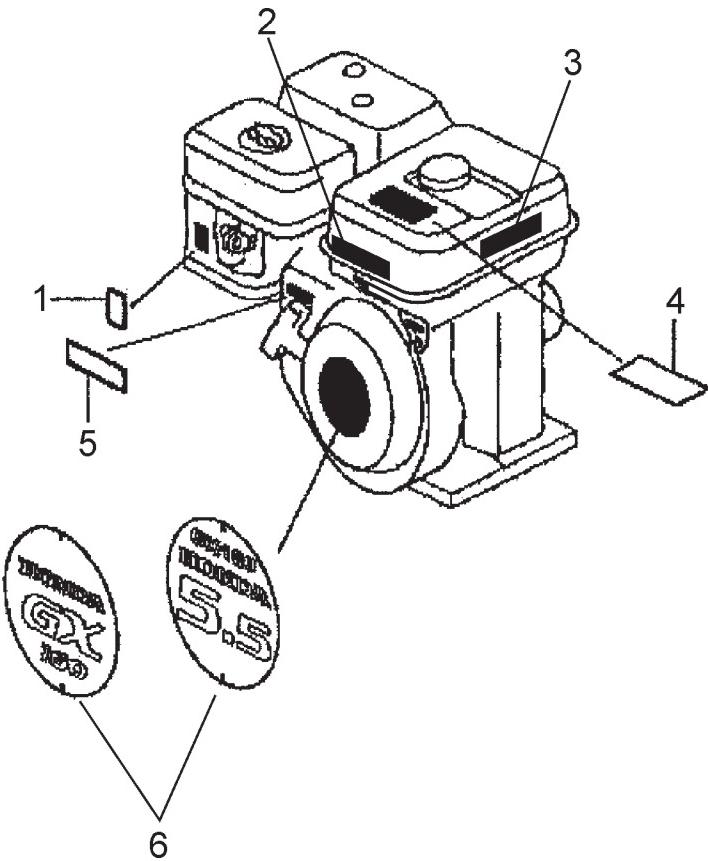
| <u>NO</u> | <u>PART NO</u> | <u>PART NAME</u> | <u>QTY.</u> | <u>REMARKS</u> |
|-----------|----------------|----------------------------|-------------|--------------------|
| 1 | 16500ZH8U43 | CONTROL ASSY. | 1 | INCLUDES ITEMS W/# |
| 2 | 90013883000 | FLANGE BOLT 6X12 | 2 | |
| 3 | 16561ZE1020 | SPRING, GOVERNOR | 1 | |
| 4 | 90015ZE5010 | BOLT, GOVERNOR ARM | 1 | |
| 5 | 16551ZE0010 | ARM, GOVERNOR | 1 | |
| 6 | 9405006000 | NUT, FLANGE 6 MM | 1 | |
| 7 | 16562ZE1020 | SRRING, THROTTLE RETURN | 1 | |
| 8 | 16555ZE1000 | ROD, GOVERNOR | 1 | |
| 9# | 93500040060H | SCREW, PAN 4X6 | 2 | |
| 10# | 16594883010 | WIRE HOLDER | 2 | |
| 11# | 90605230000 | CIRCLIP, 5 MM | 2 | |
| 12# | 90114SA0000 | NUT, SELF-LOCK 6 MM | 1 | |
| 13# | 16575ZH8000 | WASHER, CONTROL LEVER | 1 | |
| 14# | 16574ZE1000 | LEVER SPRING | 1 | |
| 15# | 16571ZH8020 | LEVER CONTROL | 1 | |
| 16# | 16578ZE1000 | SPACER, CONTROL LEVER | 1 | |
| 17# | 16580ZH8813 | BASE COMP., CONTROL | 1 | |
| 18# | 16584883300 | SPRING, CONTROL ADJUSTING | 1 | |
| 19# | 93500050250H | SCREW, PAN 5X25 | 1 | |
| 20# | 16592ZE1810 | SPRING, CABLE RETURN | 1 | |
| 21# | 93500050160A | SCREW, PAN 5X16 | 1 | |
| 22# | 16576891000 | HOLDER, CABLE | 1 | |
| 23◆ | 16599ZG1M10 | COLLAR, STOPPER | 1 | OPTION |
| 24◆ | 90016ZG9N30 | SCREW, RECESSED 5X25 | 1 | OPTION |



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- ❖ GX160U1SM12: MODEL MVH120G S/N F-1105 (2005)
- ◆ GX160U1SMX4: MODEL MVH120G S/N P-4378 AND ABOVE (2006)

HONDA GX160 ENGINE — LABEL ASSY.

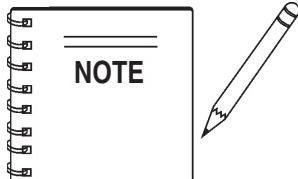
LABEL ASSY.



HONDA GX160 ENGINE — LABEL ASSY.

LABEL ASSY.

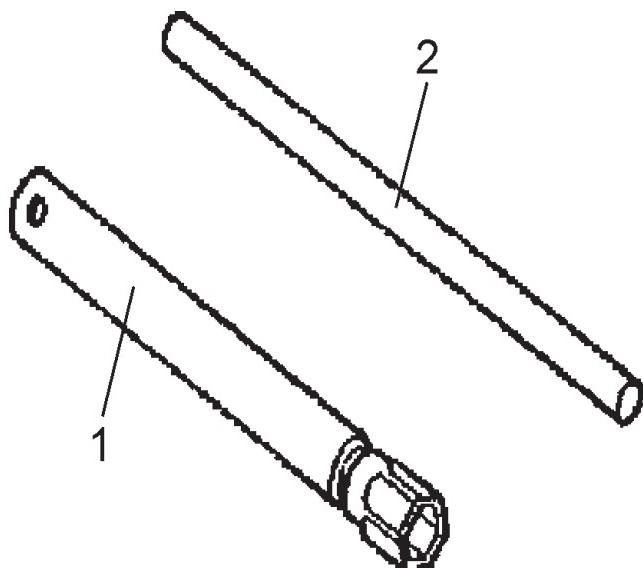
| <u>NO</u> | <u>PART NO</u> | <u>PART NAME</u> | <u>QTY.</u> | <u>REMARKS</u> |
|-----------|----------------|----------------------------------|-------------|-----------------------|
| 1☒ | 87528ZE1810 | MARK, CHOKE | 1 | |
| 1◊♦ | 87528ZH7000 | MARK, CHOKE (GRAY) | 1 | |
| 2☒ | 87522ZH9010 | LABEL, CAUTION (ENGLISH ETC.) | 1 | |
| 3☒ | 87532ZH8810 | MARK, OIL ALERT (EXTERNAL) | 1 | |
| 4◊♦ | 87516ZH7810 | MARK, OPERATOR CAUTION (ENGLISH) | 1 | |
| 5◊♦ | 87532ZH7000 | MARK, THROTTLE INDICATION | 1 | |
| 6☒ | 87521ZH8030 | EMBLEM (GX160 5.5) | 1 | |
| 6◊♦ | 87521ZH8030 | EMBLEM (GX160 5.5) | 1 | S/N 1120413 AND BELOW |
| 6◊♦ | 87521ZH8040 | EMBLEM (GX160 5.5) | 1 | S/N 1120414 AND ABOVE |



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- ♦ GX160U1SMX4: MODEL MVH120G S/N P-4378 AND ABOVE (2006)

HONDA GX160 ENGINE—TOOLS ASSY.

TOOLS ASSY.



HONDA GX160 ENGINE — TOOLS ASSY.

TOOLS ASSY.

| <u>NO</u> | <u>PART NO</u> | <u>PART NAME</u> | <u>QTY.</u> | <u>REMARKS</u> |
|-----------|----------------|-----------------------------|-------------|----------------|
| 1 | 89218ZE1000 | WRENCH COMPLETE, SPARK PLUG | 1 | |
| 2 | 89219805000 | HANDLE, BOX WRENCH | 1 | |

PAYMENT TERMS

Terms of payment for parts are net 30 days.

FREIGHT POLICY

All parts orders will be shipped collect or prepaid with the charges added to the invoice. All shipments are F.O.B. point of origin. Multiquip's responsibility ceases when a signed manifest has been obtained from the carrier, and any claim for shortage or damage must be settled between the consignee and the carrier.

MINIMUM ORDER

The minimum charge for orders from Multiquip is \$15.00 net. Customers will be asked for instructions regarding handling of orders not meeting this requirement.

RETURNED GOODS POLICY

Return shipments will be accepted and credit will be allowed, subject to the following provisions:

1. A Returned Material Authorization must be approved by Multiquip prior to shipment.
2. To obtain a Return Material Authorization, a list must be provided to Multiquip Parts Sales that defines item numbers, quantities, and descriptions of the items to be returned.
 - a. The parts numbers and descriptions must match the current parts price list.
 - b. The list must be typed or computer generated.
 - c. The list must state the reason(s) for the return.
 - d. The list must reference the sales order(s) or invoice(s) under which the items were originally purchased.
 - e. The list must include the name and phone number of the person requesting the RMA.
3. A copy of the Return Material Authorization must accompany the return shipment.
4. Freight is at the sender's expense. All parts must be returned freight prepaid to Multiquip's designated receiving point.
5. Parts must be in new and resalable condition, in the original Multiquip package (if any), and with Multiquip part numbers clearly marked.
6. The following items are not returnable:
 - a. Obsolete parts. (If an item is in the price book and shows as being replaced by another item, it is obsolete.)
 - b. Any parts with a limited shelf life (such as gaskets, seals, "O" rings, and other rubber parts) that were purchased more than six months prior to the return date.
 - c. Any line item with an extended dealer net price of less than \$5.00.
 - d. Special order items.
 - e. Electrical components.
 - f. Paint, chemicals, and lubricants.
 - g. Decals and paper products.
 - h. Items purchased in kits.
7. The sender will be notified of any material received that is not acceptable.
8. Such material will be held for five working days from notification, pending instructions. If a reply is not received within five days, the material will be returned to the sender at his expense.
9. Credit on returned parts will be issued at dealer net price at time of the original purchase, less a 15% restocking charge.
10. In cases where an item is accepted, for which the original purchase document can not be determined, the price will be based on the list price that was effective twelve months prior to the RMA date.
11. Credit issued will be applied to future purchases only.

PRICING AND REBATES

Prices are subject to change without prior notice. Price changes are effective on a specific date and all orders received on or after that date will be billed at the revised price. Rebates for price declines and added charges for price increases will not be made for stock on hand at the time of any price change.

Multiquip reserves the right to quote and sell direct to Government agencies, and to Original Equipment Manufacturer accounts who use our products as integral parts of their own products.

SPECIAL EXPEDITING SERVICE

A \$35.00 surcharge will be added to the invoice for special handling including bus shipments, insured parcel post or in cases where Multiquip must personally deliver the parts to the carrier.

LIMITATIONS OF SELLER'S LIABILITY

Multiquip shall not be liable hereunder for damages in excess of the purchase price of the item with respect to which damages are claimed, and in no event shall Multiquip be liable for loss of profit or good will or for any other special, consequential or incidental damages.

LIMITATION OF WARRANTIES

No warranties, express or implied, are made in connection with the sale of parts or trade accessories nor as to any engine not manufactured by Multiquip. Such warranties made in connection with the sale of new, complete units are made exclusively by a statement of warranty packaged with such units, and Multiquip neither assumes nor authorizes any person to assume for it any other obligation or liability whatever in connection with the sale of its products. Apart from such written statement of warranty, there are no warranties, express, implied or statutory, which extend beyond the description of the products on the face hereof.

Effective: February 22, 2006

NOTE PAGE

OPERATION AND PARTS MANUAL

HERE'S HOW TO GET HELP

PLEASE HAVE THE MODEL AND SERIAL
NUMBER ON-HAND WHEN CALLING

UNITED STATES

Multiquip Corporate Office

18910 Wilmington Ave.
Carson, CA 90746
Contact: mq@multiquip.com

Tel. (800) 421-1244
Fax (800) 537-3927

MQ Parts Department

800-427-1244
310-537-3700

Fax: 800-672-7877
Fax: 310-637-3284

Mayco Parts

800-306-2926
310-537-3700

Fax: 800-672-7877
Fax: 310-637-3284

Warranty Department

800-421-1244, Ext. 279
310-537-3700, Ext. 279

Fax: 310-537-1173

Service Department

800-421-1244
310-537-3700

Fax: 310-537-4259

Technial Assistance

800-478-1244

Fax: 310-631-5032

MEXICO

MQ Cipsa

Carr. Fed. Mexico-Puebla KM 126.5
Momoxpan, Cholula, Puebla 72760 Mexico
Contact: pmastretta@cipsa.com.mx

Tel: (52) 222-225-9900
Fax: (52) 222-285-0420

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Fax: 0161 339 3226

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4110 Industriel Boul.
Laval, Quebec, Canada H7L 6V3
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Tel: (450) 625-2244
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Multiquip

Av. Evandro Lins e Silva, 840 - grupo 505 Tel: 011-55-21-3433-9055
Barra de Tijuca - Rio de Janeiro Fax: 011-55-21-3433-9055
Contact: cnavarro@multiquip.com.br, srentes@multiquip.com.br

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This manual **MUST** accompany the equipment at all times. This manual is considered a permanent part of the equipment and should remain with the unit if resold.

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